Gout Doc
Ont
Ed
1914
cop 1

373.236097113
059DE/R

Ontario Department of Education

REGULATIONS

AND

COURSES OF STUDY

OF THE

CONTINUATION SCHOOLS

AMENDED AND CONSOLIDATED

EXTRACTS FROM

THE CONTINUATION SCHOOLS ACT

AND

OTHER SCHOOLS ACTS

1914

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

ONTARIO
DEPARTMENT OF EDUCATION

cop 1

TORONTO:
Printed and Published by L. K. CAMERON, Printer to the King's Most Excellent Majesty
1914

Ontario Department of Education

REGULATIONS

AND

COURSES OF STUDY

OF THE

CONTINUATION SCHOOLS

AMENDED AND CONSOLIDATED

EXTRACTS FROM

THE CONTINUATION SCHOOLS ACT

AND

OTHER SCHOOLS ACTS

1914

PRINTED BY ORDER OF

THE LEGISLATIVE ASSEMBLY OF ONTARIO

ONTARIO
DEPARTMENT OF EDUCATION

TORONTO:

Printed and Published by L. K. CAMERON, Printer to the King's Most Excellent Majesty

1914

Printed by
WILLIAM BRIGGS
29-37 Richmond Street West
TORONTO

DEPT. OF EDUCATION
HISTORICAL COLLECTION

Govt Doc
Ont
Ed
cop 1

PREFATORY NOTE

Part I of this manual sets forth the Regulations for the establishment, maintenance, and courses of study of the Continuation Schools; Part II, the Regulations for the Departmental examinations; and Part III, the most important sections of the Statutes that bear upon the subjects of Parts I and II.

Another manual will deal, in the same way, with the Vocational Schools and Courses—the Commercial and Agricultural Schools and Courses, and the Industrial, Technical, and Art Schools and Courses—which are established and maintained under *The Industrial Education Act,* and are managed by Advisory Committees. This manual will be issued later. In the meantime the Regulations of 1913 are in force.

Department of Education,
November, 1914.

CONTENTS

PART I

REGULATIONS AND COURSES OF STUDY

	PAGE
Establishment of Schools	11
Requirements and Grading of Accommodations	11-16
Minimum Equipment	16-17
Qualifications of Teachers	18-19
Temporary Certificates	19
Duties of Staffs	19-20
Daily Sessions	21
Duties of Pupils	21
Courses of Study	
Classification	21-22
Limitations	
Courses	22-23
Reading and Physical Culture	23
Selection	23-24
Religious Exercises and Instruction	24-25
General Syllabus	25
Subjects Common to All the Forms	25-26
Lower School	26-33
Middle School	33-36
Upper School	36-41
Graduation Diplomas	41
Inspection	42
Pupils' Work	42
Distribution of Legislative Grants	
General Grants	43
Organized Counties	43
Fixed Grants	43-44
On Salaries	44
On Accommodations	44
On Equipment	44
Special Grants	
Middle School Art	45
Manual Training and Household Science	45-46
Agriculture and Horticulture	47-48
Physical Culture	48-49
Contingency of Grants	49
Authorized Text-books	50-53
Teachers' Institutes	54-56
Equipment	
Laboratories	57-64
Gymnasiums	65
Art Rooms	65-66
Appendices: Topics and Sub-topics of Courses of Study	
Appendix A: Calisthenics, Athletics and Gymnastics	67
Appendix B: British and Canadian History	68-72
Appendix C: Geometry	73-78

PAGE

Appendix D: Elementary Science 79-83
Appendix E: Model Seasonal Course in Art 84-88
Appendix F: Manual Training 89-90
Appendix G: Household Science 91-92
Appendix H: Agriculture and Horticulture 93-100

PART II

DEPARTMENTAL HIGH SCHOOL EXAMINATIONS

Admission to the High Schools

Junior Day High School Entrance Examination
Subjects—General 103-104
Limitation of Courses in Hygiene, Art, and Nature Study 104
Schemes of Admission 104-105
Admission on Examination 105-108
Admission on Certificate 108
Admission between Examinations 108-109
Organization of Day Entrance Board 109-111
Expenses of Examination 111-112
Reports to Department 112
Disposal of Answer Papers 112
Night High Schools
Scheme of Admission 113
Organization of the Board 113
Conduct and Expenses of the Examination 113
Certificates 113
Senior High School Entrance Examination
Subjects 114
Admission 114-115
Conduct of the Examination 115
Teachers' Reports 115
Admission to the Model and Normal Schools and the Faculties of Education
Examiners-in-Chief and Associate Examiners 116
Examination Centres and Dates 116
Fees 117
Application for Admission
Dates 117
Limitations 117-118
Lower School Examination for Admission to the Model Schools 118-119
Lower School Examination for Admission to the Normal Schools and Faculties of Education 119
Exemptions from Lower School Examination 119-120
Middle School Examination for Admission to the Normal Schools 120
Upper School Exmination for Admission to the Faculties of Education 120-121
Carrying Over Subjects 121
Examination Papers, Tests and Standards 121-123
Appeals 123

PART III

EXTRACTS FROM THE CONTINUATION SCHOOLS ACT, THE HIGH AND PUBLIC AND SEPARATE SCHOOLS ACTS, AND THE DEPARTMENT OF EDUCATION ACT

PAGE

Statutory Provisions Affecting Continuation Schools
- An Act Respecting Continuation Schools....127-130
- High Schools Act 131
- High School Entrance Examination....131-132
- In the Counties 132-133
- In the Territorial Districts 133

Public Schools Act
- Agreements 133-134
- Teachers' Institutes 134
- Superannuation 134-135

School Year and Holidays 136

Penalties and Prohibitions 136

Separate Schools Act
- Superannuation 137-138
- School Year and Holidays.... 138
- Penalties and Prohibitions 138-139

Department of Education Act.... 140

Digitized by the Internet Archive
in 2025 with funding from
University of Toronto

https://archive.org/details/regulationscours00onta_57

PART I

Regulations and Courses of Study

Continuation Schools

REGULATIONS

NOTE.—*In the following Regulations, Department means the Department of Education; Minister, the Minister of Education; and Regulations, the Regulations of the Department of Education. Except where otherwise evident, the term Board includes Public and Separate School Boards.*

ESTABLISHMENT OF SCHOOLS

1. There shall be three grades of Continuation Schools, established under the provisions of *The Continuation Schools Act,* Grades A, B, and C. These schools may be established when, as reported by the Continuation School Inspectors, the following conditions are complied with to the Minister's satisfaction:

(1) There shall be a reasonable prospect of the Continuation School being efficiently maintained.

(2) In Grade A, at least the time of three teachers shall be given to the work of the Continuation School; in Grade B, at least the time of two teachers and less than the time of three; and in Grade C, at least the equivalent of the time of one teacher and less than the time of two.

(3) Adequate and suitable accommodations shall be provided as prescribed in Regulation 3, adequate and suitable equipment as prescribed in Regulation 4, and an adequate and suitable staff of legally qualified teachers as prescribed in Regulation 5.

(4) Where practicable, Public and Separate School Boards which desire to establish a Continuation School should unite as provided in Section 3 (3) of *The Continuation Schools Act.* Where, however, such union is impracticable by reason of either a Public or a Separate School Board being unable or unwilling to bear its share of the cost of establishing and maintaining a Continuation School, the Minister may approve of the establishment of a Continuation School under one of the Boards; but, in that case, the school shall be open to the children of the supporters of both Public and Separate Schools on the terms provided in Section 5 (2) and (3) of *The Continuation Schools Act,* and, subject to the Minister's decision in the case of disagreement, shall be conducted under conditions as to staffs and accommodations that are acceptable both to Public and to Separate School supporters.

REQUIREMENTS AND GRADING OF ACCOMMODATIONS

2.—(1) The plans and the site of every Continuation School hereafter erected or remodelled shall be subject to the approval of the Minister on the report of the Continuation School Inspector.

(2) (*a*) Below are detailed the requirements for the accommodations of Grades C and B Continuation Schools, except those for Manual Training, Household Science, and Agriculture and Horticulture, which are detailed in special circulars issued by the Department.

(*b*) The accommodations shall be considered as divided into four grades, according to their character and extent, and the report thereon of the Continuation School Inspector shall be in accordance with this classification.

(*c*) Where, in the case of Grade B, any part of the accommodations is used jointly by the Continuation and the Public or Separate Schools, the grading shall be at least one degree lower than if the accommodations were wholly separate.

(*d*) Grade A Continuation Schools, shall be under the same regulations as to accommodations as High Schools, with the same number of teachers. *See High School Regulation* 6.

School Site and Grounds.

3.—(1) Without the Minister's consent, which will be given only for exceptional reasons, the school grounds of schools hereafter established shall be not less than three acres in extent. They shall be easily accessible, not exposed to disturbing noises or noxious odours, properly levelled and drained, and ornamented with trees, shrubs, and flower beds; they shall also have separate entrances, recreation grounds, and walks for the sexes. The recreation grounds for the sexes shall be separated by a suitable fence, wall or hedge. No trees shall be placed so close to the school building as to check the free passage of air and light. Provision shall be made for keeping the grounds in good order.

Grades I and II shall hereafter be given only when the school grounds are spacious.

Water Supply.

(2) The water supply shall be pure and adequate. Where there is no other source of water supply, there shall be a well on the school premises (artesian if at all practicable) properly protected against pollution. If a dug well, it shall be thoroughly pumped and cleaned out at the close of each vacation, and at such other times as may be recommended by the Principal. Earthenware or graniteware water-tanks with covers are obligatory, and where water on pressure is not available, the pupils should use individual cups.

In urban schools where pure water on pressure is available, an adequate number of suitable bubblers of a sanitary character will be necessary for the highest grading, except in cases where there are a sufficient number of taps, the use of which is so guarded and supervised that only individual cups are used and the pupils, in no case, apply their lips to the taps.

Satisfactory arrangements shall be made for a suitable supply of water in the laboratory.

Grades I and II shall be given only when the water supply is inside the building.

Closets.

(3) When outside of the school building, the closets for the sexes shall be under separate roofs several feet apart. Each compartment shall be about 2½ ft. wide, fully lighted and ventilated, with a door about 3 inches short at the bottom, and 6 inches short at the top. The compartments are best divided by partitions carried up 6 feet only. The boys' closet shall be built of glazed brick or similar material, or of wood, painted a dark colour and sanded, with the floors of cement or brick, placed at least a foot above the ground. Urinals,

of slate or other non-absorbent material, divided into compartments, shall be provided for the boys, and separate and locked closets for the teachers. The closets and urinals shall be cleansed and disinfected at suitable intervals. Covered walks shall be laid from the doors of the school building to the closets. A wall or a close, high, board fence shall be provided between the boys' and the girls' side, from the closet to the school building, and the entrance to the closets shall be properly screened. When a Public or a Separate School is in the same building as a Continuation School, the closets for Continuation School pupils should be wholly separate from the closets for the other pupils. Where the closets are inside the building the above conditions shall apply *mutatis mutandis*. The number of closets should be one for every 25 boys, and one for every 15 girls. There shall not be more than one seat in each compartment. One urinal compartment should be provided for every 20 boys. For urinals a system of stalls with a gutter below is better than one of bowls or troughs.

Building.

(4) The school building shall be so situated on the grounds as to enhance its architectural appearance, and the grading shall depend upon the suitability of its site and architectural appearance.

In every school building there shall be separate entrances for the sexes with vestibules or covered porches, and separate means of egress at the rear to the recreation grounds, and, where necessary, to the closets. For the highest grading, all main exit doors shall have devices causing them to swing outwards on slight pressure from within. Durable scrapers and mats shall be placed at the outside doors. Where there are two or more storeys, the upper floors shall be sound-proofed with mortar, felt, or other suitable material. Safe and convenient means of exit in the case of fire shall be provided. The school building shall be at least thirty feet distant from the highway. A school bell, a flag-pole and flag should be provided.

At least two-thirds of the height of the basement should be above the ground. The floor should be of asphalt or of cement laid on a bed of gravel or broken stone. When the basement rooms are used for drill, manual training, play, and other school exercises, suitable hardwood floors should be laid on the cement.

Class-Rooms.

(5) Except in the case of a Grade C School with an assistant teacher, the class-rooms of the Continuation Schools shall be wholly separate from those of the Public or Separate School. They should be conveniently arranged, oblong and well proportioned in shape, the length being about one-third greater than the breadth. A superficial area of 16 square feet and a cubic air space of 250 feet, exclusive of cap rooms, shall be allowed for each pupil. Hardwood should be used for the floors and stairways. Any wood of such quality and grain as would take an oil or varnish finish will suit for the rest of the woodwork. Wood finish instead of plaster may also receive the highest grading. If calcimined or papered, the walls shall be kept free from dust, and renovated when necessary. If painted, they shall be washed down frequently and repainted as often as may be necessary. Where it is difficult to keep the ceilings in repair, metallic sheathing should be used. Suitable colour schemes (the ceiling being of a light tint) should be adopted for the halls and class-rooms. A soft colour—a light greenish or stone gray or a dull blue—suits the class-room walls; while for the halls terra-cotta shades afford a suitable contrast.

The doors shall swing outwards or both ways. There shall be at least one waste-paper basket for each room, and the floors shall be kept in good order. A closet or a cabinet shall be provided for utensils used in school work; also a suitable bookcase. In schools with three teachers, at least one separate class-room shall be provided for science teaching; in schools with only two, one of the ordinary class-rooms may be used for this purpose, but for Grade I, a laboratory shall be provided. Where the ventilation is not automatic, a movable fanlight shall be placed over each class-room door. The class-rooms should be decorated with good pictures, casts, and vases, and other suitable ornaments. Grade I shall not be given unless suitable decorations are provided. A reasonable expenditure for this purpose will be expected from year to year.

For colour schemes and lists of suitable pictures and other decorations, see *Educational Pamphlet No. 5*: List of Reproductions of Works of Art.

Assembly Halls.

(6) In Grades A and B Schools one of the class-rooms should be large enough to accommodate all the pupils in attendance, but a special well-appointed assembly hall is valuable and should when practicable be provided, for the purpose of general instruction and of the due development of the social phases of school life. Such a hall should have a floor space of about 8 square feet per pupil.

Library and Teachers' Private Room.

(7) There shall be at least one room for the private use of the teaching staff, of suitable size and comfortably furnished. The furniture shall include a couch for cases of emergency. A room for a library should be provided; but, where the teachers' room is large enough, it may be used as a library also.

Halls.

(8) The entrances, vestibules, and halls shall be roomy and well lighted, and shall be so placed as to admit of separate entrances for the sexes to the waiting-rooms, cap-rooms, and class-rooms. The halls shall be properly heated. In buildings of two or more stories there shall be separate stairways for the sexes, easy of access and well guarded. Suitable colour schemes, decorations, and pictures and casts should be provided.

Waiting-Rooms and Cap-Rooms.

(9) The waiting-rooms and cap-rooms for the sexes shall be conveniently situated with respect to the class-rooms, and shall be properly heated and ventilated. The waiting-rooms shall be furnished with benches and tables, and the cap-rooms with all necessary appliances for storing umbrellas and for hanging caps or cloaks. Provision shall also be made in the building for storing bicycles. In no case should it be possible for the air from the cap-rooms to circulate in the class-rooms.

Desks.

(10) There shall be a single desk for each pupil in attendance. The desks shall be of suitable size, with movable seats and adjustable lids. In each school room the outer row on each side should consist of adjustable seats and desks, to be adapted to pupils who are below or above the average size. The pupil, when seated, must be able to place his feet fully and easily on the floor. There

shall be a desk and a chair in each class-room for the use of the teacher, and at least one chair for visitors. A sloping stand for the gazetteer and the large dictionary shall also be provided. The laboratory shall be supplied with suitable tables for experimental work in both Physics and Chemistry.

Grades I and II shall be given only when there are single desks and suitable provision has been made for practical work in Science.

Blackboards.

(11) The Blackboards shall be of sufficient extent and of good quality (slate or ground glass preferred), properly placed in regard to light and distance from the floor, and furnished with troughs to hold chalk dust. There shall be a suitable supply of erasers for teachers and pupils, and the troughs and erasers shall be cleaned every day. *Every possible precaution should be taken against dust in the school room.*

Grade I shall be given only when the blackboard is slate or ground glass.

Lighting.

(12) The class-rooms shall be lighted from the left of the pupils, the lower edges of the windows being on a level with the tops of the heads of the pupils,* and the windows shall admit of an adequate diffusion of light throughout the class-room. They shall also be provided with blinds of suitable colour (light green or gray or greenish gray). The blinds on the left of the pupils and on windows with a northern exposure should be translucent; other blinds, opaque.

To admit of an adequate diffusion of light throughout the class-room, the windows shall be numerous (area, 1-6 of the floor space where the exposure is good; otherwise, greater area) and of clear, not ground or painted glass, with 2 or 4 panes each, and shall run as close to the ceiling, as close together, and as far to the rear of the room as practicable. A strip of prismatic glass a foot wide should be placed at the top of each window, the blind being adjusted at the height of the lower edge of the strip.

There should be two separate sets of blinds for each window. These sectional blinds should be fastened at about 2-5 of the height of the window, the lower one to pull down and the upper one to pull up. Boards will be required to provide such blinds within a reasonable time.

As the blackboards absorb a great deal of light, they should be provided with light-coloured screens that may be drawn down on them when they are not in use. In this way on dull days the light may be greatly increased at the desks farthest from the windows.

To prevent reflection from the blackboards, the windows should begin about six feet from the front wall of the class-room.

Grade I is given only when the lighting is from the left and is otherwise satisfactory.

---

*Light from above is best; but light from the left is the best available, for it throws any shadow off the pupil's book, etc. When, as directed above, the windows are run up to about half a foot from the ceiling, a good deal of the light on the left comes from above. To secure as much of this light as possible the tops of the windows should be square rather than curved. Light from the rear is injurious to the teacher's eyes. Cross lights are injurious. Where there are already windows in front of the pupils, it is indispensable that they be closed up; such lighting is most injurious.

Heating.

(13) The temperature of the class-rooms, halls, waiting-rooms, cap-rooms, and teachers' private rooms shall be not less than sixty-five and not more than sixty-eight degrees. A thermometer shall be provided for each class-room. Where stoves are used they shall be so placed and protected as to prevent discomfort to any pupil.

In the schools of the larger urban centres an effective Plenum system of heating with automatic regulation of temperature should be provided. Where several small Plenum chambers are used instead of one large chamber, auxiliary steam coils, which are more or less objectionable, may be dispensed with.

Grades I and II shall be given only in the case of schools heated with hot air, or steam or hot-water radiators.

Ventilation.

(14) Due attention shall be paid to the moisture as well as the temperature of the air. The foul air shall be removed and the pure air supplied so that there shall be a complete change at least five times an hour. Air *shall not* be taken from the school rooms or from the basement to supply the furnace.

Where storm sashes are used on the outside, they shall contain sliding panels or shall be hinged at the top, to allow of the ingress of pure air; or they may be placed on the inside and also hinged at the top. A draft-chamber or other suitable special means of ventilation shall be provided for the laboratory.

An adequate supply of pure air is indispensable. A volume of 2,500 cubic feet of pure air should be supplied per pupil per hour. Such a supply can be fully secured in large schools only when propelled into the class-rooms by means of fans. A satisfactory fan system, such as the Plenum system, will be required for the highest grading in schools in the large urban centres. In this system the inlets for the air must not be near the ground or where street dust and other impurities are liable to be attracted. In locating the inlets, the direction of prevailing winds and draughts must be carefully considered.

The windows shall be adjusted by weights and pulleys, and when the outside temperature permits, they will provide a change of air during the recitations and especially during recess.

Minimum Equipment

4. For Continuation Schools, the equipment shall be suitable and adequate in amount and of the following minimum value:

(1) For Grade C Schools:	
Library	$150
Scientific apparatus	150
Biological specimens	25
Maps, charts, globes, etc.	25
Art models and supplies	50

*In a Plenum system of heating, the air is forced into a chamber by means of a fan, operated by either steam or electricity, through heating coils designed to heat the air to the required temperature, and is forced from the chamber through pipes or ducts to the various apartments, being delivered through gratings placed about seven feet from the floor. Small plenum chambers are simply galvanized iron boxes, in which steam-heating coils are placed with ducts leading therefrom to the various rooms. An exhaust system of ventilation operated by an exhaust fan, electrically driven, should be used in conjunction with the Plenum system, to secure proper ventilation. In the use of such fans, however, great care should be exercised to prevent injurious draughts.

(2) For Grades A and B Schools:

Library	$300
Scientific apparatus	300
Biological specimens	50
Maps, charts, globes, etc.	50
Art models	50

(3) The equipment for a Continuation School shall be approved from time to time by the Inspector of Continuation Schools, and shall be used only for Continuation School purposes.

(4) From year to year, the Board shall expend on equipment such further sums as may be required by the Minister of Education, on the report of the Inspector of Continuation Schools.

NOTES: 1.—Without the special equipment, the teaching cannot be effective, more particularly without a supply of suitable books for the library and of apparatus for teaching Science. In rural school sections the course in Science with its agricultural applications should be made prominent.

2.—At least one locked press or cabinet should be provided to contain the books and the apparatus. The chemicals should be kept in a separate press. For the safe-keeping of all the equipment, the Board should hold the principal responsible; and, on a change of principal, it should investigate the condition of the equipment.

3.—The special equipment shall be entered under suitable heads in the catalogue separately from the ordinary equipment, which latter shall not be included in computing the grant for the Continuation Schools. The catalogue and the invoices of new equipment shall be inspected at each visit by the Inspector or Inspectors concerned. The invoices shall be kept on file at the school. The various items of the equipment shall also be valued by the Inspectors as often as may be rendered necessary by the condition of said items.

4.—In a suitable book a record shall be kept of the books taken from the library during the school year. It shall be the duty of the teachers to guide and encourage the pupils in the use of the library.

QUALIFICATIONS OF TEACHERS

5.—(1) In a Grade A School the qualifications of the teachers shall be the same as those for a High School. *See High School Regulations,* 8 (1).

(2) In a Grade B School:

(*a*) The Principal shall hold a Permanent First Class certificate, or a High School Assistant's or an Interim First Class certificate, which after two years' successful experience, as attested by the Inspectors, has been endorsed by the Minister as valid for the Principalship of a Grade B Continuation School.

(*b*) The Assistant shall hold an Interim or a Permanent First Class certificate, unless the Principal holds such certificate, in which case the Assistant's certificate may be a Permanent or an Interim High School Assistant's.

(3) In a Grade C School:

(*a*) The Principal shall hold a Permanent First Class certificate, or an Interim First Class certificate which after two years' successful experience, as attested by the Inspectors, has been endorsed by the Minister as valid for the Principalship of a Grade C Continuation School.

(*b*) When an assistant is employed he shall hold a Permanent or an Interim First Class certificate.

NOTES: 1.—A teacher who was qualified for a Continuation School under the Regulations of 1907 shall remain qualified under the same School Board for the Continuation School in which he is now teaching.

2.—Before appointing a teacher, Boards of Trustees should consult the Inspector of Continuation Schools in order that all the necessary subjects of study may be adequately provided for.

3.—Teachers of Continuation Schools shall be granted permanent certificates under the same Regulations as govern the High Schools. Experience gained in a Continuation School alone shall not be counted as Public School experience.

4.—When changing from a lower status to that of a Grade A, School Boards should keep in mind the fact that the principal of this Grade must hold the certificate of a High School principal, and they should give due notice to the principal of the lower grade school if he does not hold such certificate.

(4) (*a*) In a Continuation School, for teachers of Art, Physical Culture, and the Commercial subjects, the minimum qualification shall be an Elementary certificate.

(*b*) In a Continuation School, for teachers of Manual Training and Household Science, the minimum qualification shall be an Interim Ordinary certificate; and for teachers of Agriculture and Horticulture at least an Intermediate certificate. See Regulation 11 (2) (*a*) and (*b*) p. 47.

(*c*) After reasonable notice by the Minister and on the report of the Continuation School Inspector, members of Continuation School staffs who take part in the teaching of the subjects, but who do not hold the certificates prescribed in (*a*) and (*b*) above, shall qualify themselves for such certificates and Boards shall provide teachers with these qualifications. In the meantime, the Minister may accept, on the report of the Continuation School Inspector, such qualifications as are found to be the highest available.

NOTES: 1.—Courses leading to certificates valid in High and Continuation Schools, in Art, Physical Culture, the Commercial subjects, and Agriculture and Horticulture are provided annually by the Department at Summer Schools. The syllabuses of these schools may be obtained on application to the Deputy Minister.

2.—The teachers concerned are required to avail themselves of these opportunities without unnecessary delay.

Temporary Certificates

6.—(1) If, after duly advertising and offering an adequate salary, a Board is unable to obtain a legally qualified teacher, a temporary certificate for all or a part of the current school year may be granted by the Minister to a suitable person on the application of the Board.

(2) In the case of substitute teachers without legal qualifications, appointed in an emergency, no engagement for longer than two weeks shall be made without the formal consent of the Minister, on application by the Board.

DUTIES OF STAFFS

7.—(1) In every Continuation School the head teacher shall be called the Principal, and the other teachers, Assistants.

(2) The authority of the Principal of the Continuation School shall be supreme in all matters of discipline in his own school.

(3) When the Continuation and the Public or Separate Schools occupy jointly a school building or school grounds, the authority of the Principal of the Continuation School shall be supreme in all matters of discipline in those parts of the accommodations which the schools occupy in common.

(4) It shall be the duty of the Principal:

(*a*) To admit no pupil who has not been duly admitted under the High School Entrance Regulations.

(*b*) To admit no pupil who has been enrolled in another Continuation School or in a High School, unless he presents a letter of honourable dismission from the Principal of the school he last attended. In the event of a dispute, the parties thereto shall submit full particulars of the question to the Inspector of the school into which the pupil seeks admission.

(*c*) (i) To determine the number of Forms, the number of pupils to be assigned to each Form, and the order in which the subjects in each Form shall be taken up by the pupils.

(ii) To make such promotions from one Form to another as he may deem expedient.

(*d*) Subject to the Regulations, to assign the subjects of the Courses of Study among the assistants.

(*e*) To bring under the notice of boards, parents, guardians, and pupils, from time to time as he may deem expedient, such of the provisions of the Regulations as apply to them respectively.

NOTE.—When the school opens in September, and as often thereafter as may be necessary, the Principal shall explain duly to the pupils their duties, the courses of study, and the requirements of the examinations for which they may be preparing.

(*f*) To make, as far as practicable, suitable arrangements for the oversight and comfortable accommodation of those pupils whom he has permitted to present themselves in the school building before 8.45 a.m., and of those whom he has permitted to remain in the school building during the noon recess or after the close of school; also for the supervision of the playgrounds during the recesses.

(*g*) To give assiduous attention to the health and comfort of the pupils, to the cleanliness, temperature and ventilation of the school house, to the care of all maps, apparatus and other school property, to the preservation of shade trees and the orderly arrangement and neat appearance of the playgrounds, and to report promptly to the board and to the municipal health officer the appearance of any infectious or contagious disease in the school, or the unsanitary condition of the school house, outhouses or surroundings.

(*h*) To refuse admission to the school of any pupil who he believes is affected with, or exposed to chicken pox, smallpox, cholera, glanders, scarlet fever, scarlatina, diphtheria, whooping cough, measles, mumps, or consumption, or other infectious or contagious disease, until furnished with a certificate of a medical health officer or of a duly qualified medical practitioner approved by him, that all danger from exposure to contact with such pupil has passed.

(*i*) To suspend any pupil guilty of persistent truancy, or persistent opposition to authority, habitual neglect of duty, the use of profane or improper language or conduct injurious to the moral tone of the school, and to notify the parent or guardian of the pupil, and the board, of such suspension; but the parent or guardian of any pupil suspended may appeal against the action of the Principal to the board, which shall have power to remove, confirm or modify such suspension.

(5) If a parent or guardian fails, after reasonable notice by the Principal, to pay the school fees of his child or ward, or to provide him with the text-books or other supplies required in his course of study or to pay the fees imposed for such purpose by the Board, the Principal shall notify the Board promptly of such neglect, and the Board may suspend the pupil, or it may itself provide him with such text-books and other supplies, and may exempt him from the payment of school and other fees.

(6) If a pupil injures or destroys school property the Principal shall report to the parent or guardian, and, if within a reasonable period, the parent or guardian fails to make good the damage, the principal shall submit the matter promptly to the Board for settlement.

(7) When so requested, every Principal shall furnish the Minister and the Inspector with any information which it may be in his power to give respecting the condition of the school premises, the discipline of the school, the progress of the pupils, and any other matter affecting the interests of the school, and shall prepare such reports to the Board as may be required by it.

(8) Every teacher should be in his place in the school at least fifteen minutes before the opening of the forenoon session and at least five minutes before the opening of the afternoon session.

DAILY SESSIONS

8.—(1) (*a*) Unless otherwise directed by the Board, and approved by the Minister, the pupils attending a Continuation School shall assemble for study at nine o'clock in the forenoon, and shall be dismissed not later than four o'clock in the afternoon.

(*b*) Such recesses at noon and during the forenoon and afternoon shall be allowed as the Board may approve; but in no case shall the number of school hours be less than five hours a day, including the recesses in the forenoon and afternoon.

(2) The school hours in a Night School shall be determined by the Board, and shall not exceed two and a half hours each session.

DUTIES OF PUPILS

9.—(1) (*a*) A pupil registered in a Continuation School shall attend punctually and regularly.

(*b*) He shall be neat and clean in his person and habits, diligent in his studies, kind and courteous to his fellow pupils, obedient and respectful to the teachers, and shall submit to such discipline as would be exercised by a kind, firm and judicious parent.

(2) (*a*) A pupil on returning to school after absence shall give the Principal, from the parent or guardian, orally or in writing, as may be required by the Principal, the reason for his absence. If this reason is not satisfactory the Principal shall communicate with the parent or guardian, and, in the event of no satisfactory explanation, he may refuse the pupil admission thereafter, but, in that case, he shall submit the question forthwith to the Board for final settlement.

(*b*) A pupil may retire from school at any hour with the consent of the Principal, or at the request, either oral or written, of his parent or guardian. If, however, the Principal has reason to believe that an unjustifiable use is being made of this privilege, and is unable to secure due amendment, he shall submit the question forthwith to the Board for settlement.

(*c*) A pupil shall be responsible to the Principal for his conduct on the school premises and on the way to and from school, except when accompanied by his parent or guardian or by some person appointed for this purpose by such parent or guardian.

COURSES OF STUDY

CLASSIFICATION

10.—(1) The General Syllabus below provides for the following Day School courses in three divisions: Lower School, Middle School, and Upper School, each being regularly a two years' course:

(*a*) The General Course for pupils who, not having in view course (*b*), (*c*), or (*d*) below, desire a general education.

The minimum of subjects prescribed therefor is as follows:

The Reading, English Grammar (first year), Arithmetic (first year), Geography, Elementary Science, and Art of the Lower School.

The English Literature, English Composition, History, Algebra, Geometry, Manners and Morals, and Physical Culture of the Lower and the Middle School.

(*b*) The courses for admission to the Model and Normal Schools and the Faculties of Education, as prescribed in Part II.

(*c*) The courses for Pass Senior and Pass and Honour Junior Matriculation into the University of Toronto, as prescribed in the calendars of the Universities of the Province and in Departmental Circular No. 24.

(*d*) The courses for the preliminary examinations of the learned professions as prescribed in their syllabuses.

(2) In addition to the courses prescribed in (*c*) and (*d*) above, the pupils therein shall take the Geography, History, Arithmetic (first year), Grammar (first year), and Reading of the Lower School, and, throughout their courses, the Physical Culture and Manners and Morals of the General Syllabus.

(3) The Night School courses shall consist of such courses in the subjects of the General Syllabus as may be provided by the Board.

(4) The definitions of the subjects of the General Syllabus are common to the day and night school courses.

LIMITATIONS

COURSES

11.—(1) Except on the report of the Continuation School Inspector and with the approval of the Minister, obtained before any subject is added, no higher courses may be taken up in a Continuation School with only one teacher than those prescribed for the Lower School.

(2) Except on the report of the Continuation School Inspector and with the approval of the Minister, obtained beforehand, none of the Upper School Courses may be taken up in a Continuation School with a staff of only two regular teachers: and in the Lower and Middle Schools not more may be taken up than the General Course, the courses for admission to the Normal and Model Schools, and one of the courses for Junior Matriculation, this course being one of those including Science in the case of schools where the course for admission to the Normal Schools is also taken up.

NOTE.—It is intended that the Continuation Schools with staffs of two regular teachers, shall be specially organized for the rural districts. After reasonable notice and due provision for carrying out the scheme, they will be required to provide, in addition, courses in Agriculture and Horticulture, under duly qualified teachers of these subjects.

(3) Except on the report of the Continuation School Inspector and with the approval of the Minister, obtained beforehand, the course for Senior Matriculation may not be taken up in a Continuation School with a staff of only three regular teachers. The courses in such schools shall be confined to the General Course, to the courses for admission to the Model and Normal Schools, and Pass Junior Matriculation, and to not more than one complete Part each year of the course for admission to the Faculties of Education; and to Honour Junior Matriculation in not more than one of the departments of Classics, Mathematics, Science, French and German, with, in addition, either or both English and History.

(4) (*a*) The courses in Manual Training, Household Science, Agriculture and Horticulture, and Middle School Art may be taken up in any School when provision therefor has been made satisfactory to the Minister on the joint report of the Continuation School Inspector and the special Inspector or Director concerned.

(*b*) Due notice of the proposed establishment of any of the foregoing courses shall be sent to the Minister. Unless such notice is sent and the courses are approved by the Minister, their establishment will not be authorized, and no examinations in such courses will be held at the centre.

12.—(1) In order to secure due organization and economy of effort, the division of a subject amongst the teachers should be avoided, except where other important considerations should prevail.

NOTE.—A reasonable division of subjects amongst the competent members of the staff is sometimes most desirable in order to permit for a time, in the case of the pupils, the intermission of the study of suitable subjects and to prevent, in the case of the teachers, the evils of monotony and an excessive burden of class exercises.

(2) Not all the subjects of a Course should be taken up concurrently. From time to time the Principal should intermit the study of suitable subjects or topics or he should lessen the intensity of the study thereof.

NOTE.—The neglect of this principle, combined with a lack of supervision by the Principal of the home-work assigned by the other members of the staff, is one of the most fruitful sources of overpressure.

READING AND PHYSICAL CULTURE

13. The following shall be the average minimum amount of time to be devoted to each of the following subjects, separately from the other subjects, in the courses where such subjects are obligatory:

(1) *Reading.*—Two lessons of thirty minutes every week for the first year, the average number of pupils in each class being not more than twenty-five and the time being increased or diminished proportionately when the average in the class is greater or less than twenty-five.

(2) (*a*) *Physical Culture.*—When the weather and the accommodations permit, the course in Physical Culture shall be taken up systematically at least an hour and a quarter every week in each Form, throughout the year.

(*b*) No pupil shall be exempted from the course in Physical Culture except upon a medical certificate, or on account of evident physical disability, or for other reason satisfactory to the Principal.

(*c*) Subject to the report of the Continuation School Inspector, in all the Forms the sexes shall be separately trained.

(*d*) When the weather permits the Principal may substitute each week for not more than half the time prescribed above for Physical Culture, suitable sports and games, in which all the members of a class shall take part, and which shall be under the supervision of the members of the staff.

SELECTION

14.—(1) Subject to the provisions of the foregoing Regulations the Board shall select the Day and Night School courses of study on the report of the Principal; but a course shall not be taken up if, on the report of the Inspectors and

the Director concerned, the Minister decides that the staff, the equipment, or the accommodations are inadequate or unsuitable therefor.

(2) Subject to the authorization of the parent or guardian, a record of which shall be kept by the Principal,—

(*a*) Each pupil shall take one of the courses prescribed in Regulations 10 (1) and (2); and—

(*b*) Each pupil may take in addition to the course selected, such other subjects of the General Syllabus as may be approved by the Principal.

(3) Subject to the approval of the Principal, each Night School pupil shall select his subjects from amongst those provided by the Board.

(4) The Principal may omit or curtail the courses in any of the subjects of the General Course or the Night School Courses, in the case of individual pupils whose circumstances in his judgment necessitate such consideration.

RELIGIOUS EXERCISES AND INSTRUCTION

15.—(1) (*a*) Every Continuation School shall be opened with the reading of the Scriptures and the repeating of the Lord's Prayer, and shall be closed with the Lord's Prayer or the prayers authorized by the Department of Education; but no pupil shall be required to take part in any religious exercises objected to by his parent or guardian.

(*b*) (i) In schools without suitable waiting-rooms, or other similar accommodation, if the parent or guardian demands the withdrawal of a pupil while the religious exercises are being held, such demand shall be complied with and the reading of the Scriptures shall be deferred in inclement weather until the closing.

(ii) To secure the observance of this regulation, the teacher, before commencing a religious exercise, shall allow the necessary interval to elapse, during which the children or wards of those, if any, who have signified their objection may retire.

(*c*) If the parent or guardian objects to his child or ward taking part in the religious exercises, but directs that he shall remain in the school room during such exercises, the teacher shall permit him to do so, provided that he maintains decorous behaviour during the exercises.

(*d*) If, in virtue of his right to be absent from the religious exercises, any pupil does not enter the school room till the close of the time allowed for religious exercises, such absence shall not be treated as an offence against the rules of the school.

(*e*) When a teacher claims to have conscientious scruples in regard to opening or closing school as herein prescribed, he shall notify the Board to that effect in writing; and it shall then be the duty of the Board to make such provision as it may deem expedient for the carrying out of the requirements of (1) (*a*) above.

(2) (*a*) The Scriptures shall be read daily and systematically; the parts to be read may be taken from the book of selections adopted by the Department for that purpose, or from the Bible, or from the list of the Selected Scripture Readings of the International Bible Reading Association, as the Board by resolution may direct.

(*b*) A Board may also order the reading of such parts by both pupils and teachers at the closing of the school, the repeating of the Ten Commandments at least once a week, and the memorization of passages selected by the Principal from the Bible.

(*c*) If the Board does not pass the resolution provided for in (*a*) above, the Principal shall make the selection himself, and shall promptly notify the Board of his action. Such action may be revised by the Board at any time thereafter.

(3) (*a*) A clergyman of any denomination shall have the right, and it shall be lawful for the Board to allow him, to give religious instruction to the pupils of his own church, in each school house, at least once a week, after the hour of closing the school in the afternoon.

(*b*) Under the same conditions, a clergyman, selected by the clergymen of any number of denominations, shall also have the right to give religious instruction to the pupils belonging to such denominations.

(*c*) If the clergymen of more than one denomination apply to give religious instruction in the same school house, where the number of class-rooms is insufficient for all at the same time, the Board shall decide on what day of the week a room shall be at the disposal of the clergyman of each denomination, at the time above stated.

(4) Emblems of a denominational character shall not be exhibited in a Continuation School during regular school hours.

GENERAL SYLLABUS

16.—(1) Subject to any instructions issued from time to time by the Minister, the General Syllabus of the Courses for Continuation Schools shall be as set forth below.

(2) A subject prescribed for any year or years may be subsequently reviewed.

(3) When, at any time the course in a subject, as herein prescribed, differs in content from the course in the same subject as prescribed for University Matriculation, the Principal shall make the modification necessary for the latter.

(4) No subject may be added to those in the General Syllabus without the approval of the Minister.

SUBJECTS COMMON TO ALL THE FORMS

Manners and Morals.—Throughout the courses the teacher shall incidentally, from current incidents, from the lessons in literature, history, etc., by his selection of the supplementary reading, and by his own example as well as by precept, give instruction in moral principles and practices and in good manners.

PHYSICAL CULTURE.—(1) The main object of the course is the symmetrical development of the body, securing at the same time strength and grace with correct and prompt obedience to the will.

(2) A systematic and well-developed course of exercises in Drill and Calisthenics, both free and with apparatus, and in Gymnastics, when practicable, should be taken up in each of the sub-divisions. While dependent to some extent upon the accommodations and equipment, the exercises should always be suitable in character and frequency to the age and physical condition of individual pupils. Prevailing defects should be studied and exercises and directions given to correct them. School games and sports should be systematically encouraged.

(3) Where a Cadet Corps is maintained the courses therefor shall be given in accordance with the Regulations of the Department of Militia and Defence, Ottawa. See Departmental Circular: INSTRUCTIONS No. 10.

For the topics and sub-topics of the courses in Calisthenics, Athletics, and Gymnastics, see Appendix A.

LOWER SCHOOL

READING.—Intelligent and intelligible natural reading; the principles to be learned incidentally and summarized at the close of the course.

Exercises in breathing, articulation, and vocalization.

ENGLISH GRAMMAR: *First Year.*—A thorough review of the work of Form IV of the Public and Separate Schools with emphasis on the practical applications.

Second Year.—The intensive and more reflective study of the principles of etymology and syntax, including the logical structure of the sentence and the inflection, formation, and classification of words.

An outline of the history of the development of the language.

NOTE.—The use of English grammar in teaching correct oral and written composition, though important, especially when the principles of good English can be intelligently applied, is secondary to the insight it gives into the structure of our thinking and expression.

ENGLISH COMPOSITION.—Oral and written composition: elements of Narration, Description, Exposition, and Argumentation.

Letter writing.

Oral and written reproductions or abstracts.

Class debates.

Systematic and careful application of the principles of good English to the correction of mistakes made by the pupils in speaking and writing.

NOTES: 1.—Actual practice in oral and written compositions should largely predominate. The main principles of composition (rhetoric) should be learned from the criticism of the compositions, and systematized as the work proceeds.

2.—For some weeks at a time the minute study of the English Literature texts might be intermitted and some of the time thus set free devoted to English Composition, in the teaching of which the Supplementary Reading might be utilized, and compositions might be written in the class under the supervision of the teacher.

3.—The spelling and the writing of the compositions and other written exercises should be constantly supervised. If the pupils have been properly prepared in the Public and Separate Schools, special provision for these subjects should be unnecessary.

ENGLISH LITERATURE.—Intelligent comprehension and oral reading of suitable authors, both prose and poetry.

Systematic oral reading of the texts studied in class.

Supplementary Reading provided by the pupils themselves or supplied from the school, public, or other library.

Memorization and recitation of choice selections in prose and poetry prescribed by the Department and of others made by the teacher.

NOTES: 1.—The object of the course in the Lower School is the cultivation of a taste for good literature, not by minute critical study, but by reading at home and in school aloud and silently, with due attention to the meaning, standard authors whose works will quicken the imagination and present a strong element of interest. Such authors should be chiefly narrative, descriptive, and dramatic.

2.—At the beginning of each school year a short list should be made out for each Form, under at least four heads, of such suitable works as may be obtained in the school, public, or other library, and each pupil should be required to read during the year at least one under each head in addition to those taken up in class. In English Literature too much time has hitherto been given to the minute study of the texts. A larger proportion should be given hereafter to the supplementary reading.

HISTORY: *First Year.*—A brief outline of Canadian History to 1840 and a more extended outline from 1840 to the present time.

The elements of the civil government of Canada and of Ontario.

Second Year.—A very brief outline of British History to the Tudor period, a brief outline to 1685, and a more extended outline from 1685 to the present time.

In both years, supplementary reading and biographical sketches of persons famous in British and Canadian History and in Greek and Roman History.

The great events of current history, and the duties of citizenship.

For the topics and sub-topics of the courses, see Appendix B.

NOTES: 1.—The main purpose of the course is to arouse an interest in historical reading; but, at this stage, a beginning should be made in appreciating the logical connection of events. Pupils should be trained to use the school, public and other libraries for reference purposes and for supplementary reading.

See Educational Pamphlet, No. 4: VISUAL AIDS TO TEACHING HISTORY.

2.—The work in history should be systematically correlated with that in oral and written composition, and so much geography should be taken up as will secure intelligent comprehension of the topics dealt with. Compositions should be based on historical topics, especially such as will require supplementary reading.

3.—Any of the text-books in British and Canadian History authorized for the High Schools may be used, at the discretion of the Principal, the teacher selecting the suitable portions; but the Public School histories of England and Canada may be taken as presenting the outlines of the courses. Where, however, the Public School histories are used, they should be supplemented as far as time will permit.

GEOGRAPHY: *First Year, Commercial and Map.*—The following countries with regard to their principal resources, industries, and productions; chief centres of population; the condition of the people and their forms of government; and the influence of their geographical conditions on their political, industrial, and commercial development:

(1) The United States, Mexico, Brazil, Argentine Republic, Chili, France, Germany, Russia, Belgium, Holland, Denmark, Austria-Hungary, Italy, Turkey, Egypt, China, Japan.

(2) The United Kingdom; Canada and Ontario and the other important components of the British Empire.

Outline map-drawing in connection with the study of the above countries.

The countries in (1) to be studied in outline; those in (2), in greater detail.

NOTES: 1.—The course in Commercial and Map Geography, even when studied in detail, should not deal with minute particulars; nor should the pupil be required to memorize the exact statistics, even in the case of the most important; as statistics change from time to time, round numbers will be sufficient. With such general knowledge the pupil will have sufficient for the ordinary purposes of life. When he needs special particulars, he may readily find them in books of reference.

2.—Books of travel and other supplementary reading from the school or public library should be supplied; also, when practicable, exhibits of the products characteristic of the countries studied; and pictures and photographs of famous places.

Second Year.—Physical Geography.—Changes of the earth's surface; rocks; rivers, valleys, and lakes; weathering, soils, and underground waters; wind work; glaciers and their work; plains, mountains, and plateaus; volcanoes and earthquakes.

The atmosphere; winds, storms, and climate.

The earth's magnetism.

The ocean; the meeting of land and sea.

Life on the earth; geological history of Canada.

The earth and the sun; the solar system; other heavenly bodies.

NOTES: 1.—As far as practicable the teaching should be based on experiments, the observations during excursions, and the careful study of charts and maps. During the same excursions both Physical Geography and Elementary Science may be studied.

As far as practicable also contour maps should be used in dealing with the topics of the course.

The following laboratory manual and contour maps will be found useful:

Student's Laboratory Manual of Physical Geography—Brigham. 60c. D. Appleton & Co., New York.

Map of part of Cobalt, Miller & Knight. Free. Bureau of Mines, Toronto.

Topographical Maps: 1 inch to 1 mile series, 50 cents a copy; 1 inch to 1 mile series, 60 cents a copy. Department of Militia and Defence, Ottawa. Address the Secretary, Militia Council.

Map of United States, 18 in. by 28 in., with contours, 15c. United States Geological Survey, Washington, D.C.

Topographic Map, Niagara Sheet, N.Y., 10c. United States Geological Survey, Washington, D.C.

2.—The study of weathering should be preceded by an examination of the chief rocks, such as granite, sandstone, limestone, shale, etc., and the relation between the rocks and soils should be indicated; the disintegrating action of frost, air, and rain can be well studied on a field trip.

3.—The work of rivers should be illustrated by a study of rills and small streams in the neighbourhood; also by a study on maps of young, mature, and old river systems.

4.—Weather forecasting should be studied in connection with weather maps. Specimen copies of such maps may be obtained on application to the Director of the Meteorological Office, Toronto.

5.—The study of the ocean should be based on a careful study by the pupils of maps of the Atlantic and other oceans. A chart of the main currents should be compared with a chart of the prevailing winds, and also with a rainfall chart of the world.

6.—The astronomical work should be based largely on observations of the heavenly bodies and on experiments. The explanation of the phases of the moon should be attempted only after the moon has been observed daily for at least a month as to shape,

time of rising, position at sunset, etc. The apparent motion of the stars and the changing relation of the planets to the stars should be observed before the relations of the members of the solar system are discussed and the heliocentric theory propounded.

7.—Glacial action should be taken up in connection with the study of the glacial evidences of the district.

8.—Where practicable and when time will permit, the measurement of the dew point and humidity might be made by pupils; the part played by dust in producing the colours of the sky and in assisting condensation might be experimentally demonstrated.

9.—Isothermal and isobaric charts of the world for winter and summer should be carefully studied. The changes during the seasons and the effect of latitude, altitude, winds, mountains, and ocean currents upon the isobars and isotherms should be explained.

10.—Before taking up the natural phenomena of the air, such as clouds, dew, rain, etc., these phenomena should have been carefully observed by the pupils over an extended period; for instance, before discussing dew they should have records for over a month showing on what nights there was dew; whether the nights were cloudy or clear, still or windy; whether preceded by a warm or cold day; the direction of the wind; on what objects dew appears most abundantly, etc.

ARITHMETIC: *First Year*: The simpler parts of both the theory and the practice of the following course:

Review of principles; measures and multiples; fractions (vulgar and decimal); contracted methods of computation; compound quantities, including the metric system; square root; commercial arithmetic; applications of percentage: commission, insurance, taxes, interest, bank discount, stocks, and exchange; the use of the common business forms.

Oral arithmetic.

The rectangle, triangle, circle, parallelopiped, prism, cylinder.

Second year: The first year's course reviewed, with the more difficult parts of both the theory and the practice of the same course.

The pyramid, cone, and sphere.

NOTES: 1.—The processes and problems in the commercial work shall be such as find *direct* application in ordinary life. Accuracy, rapidity, and neatness of work shall be kept in view.

2.—The common business forms to be taken up are as follows: Receipts, promissory notes, drafts, orders, deposit slips, cheques, bank drafts, bills of goods, invoices, accounts, endorsement and acceptance and consequent liability.

ALGEBRA.—Elementary work; factoring; highest common factor and lowest common multiple; fractions; simple equations of one unknown quantity; simple exercises in involution and square root.

GEOMETRY.—Definitions; fundamental geometric conceptions and principles; use of simple instruments, compasses, protractor, graded rule, set-square; measurement of lines and angles, and construction of lines and angles of given numerical magnitude; accurate construction of figures.

Some leading propositions in Euclidean plane geometry, reached by induction as the result of the accurate construction of figures; deduction also employed as principles are reached and assured.

The course in Theoretical Geometry begun.

The course in Geometry shall not be begun until the second year.

For the sub-topics of the course see Appendix C.

The introductory course in Practical Geometry should emphasize physical accuracy, exactness in drawing lines of required length, in measuring lines that are drawn, in constructing angles of given magnitude, and in measuring angles that have been constructed. The course in Geometry retains Euclid's common notions, regarding them from modern standpoints.

LATIN AND GREEK.—The Ontario High School Latin Book, including introductory work in the prose authors.

The First Greek Book begun in the second year.

NOTE.—Throughout the courses in Latin and Greek the main objects should be accuracy of knowledge of forms and syntax, accuracy of translation into idiomatic English, and the ability to translate at sight. Attention should also be given to pronunciation and oral reading, and to the consideration of Latin and Greek words as the roots of English words.

FRENCH AND GERMAN.—The Ontario High School French and German Grammars and Readers, including introductory work in authors.

NOTES: 1.—The work in French should at first be wholly without a text-book, for the training of the ear and tongue; grammar learned incidentally. Names of common objects, states and actions. Memorization of suitable selections from simple poetry. Reading anecdotes, short stories, and easy descriptions, with oral drill on the material read. After three or four months of this course the systematic study of the elementary book should be begun, the work being chiefly oral. German should be begun in the same way the second year, but with greater apportionment of time and more rapid progress. When desirable, owing to local conditions, German may be begun first.

2.—Special importance should be attached to Oral Work. Teachers should improve themselves by attending suitable summer classes.

ELEMENTARY SCIENCE.—*First Year.—Botany, Zoology, and Physics.*—An elementary practical course.

Second Year.—The course of the first year continued, with an introductory course in Chemistry.

For the topics and sub-topics of the courses see Appendix D.

For lists of suitable apparatus see pp. 57-64.

NOTES: 1.—The objects of the course are to train pupils in correct observation and deduction; to give, in connection with the instruction in geography, a fair knowledge of the world around them to those who will not remain at school more than a few years, and to lay the foundation for the more detailed study of each subject in the case of those who will continue the work into the higher Forms. The spirit of the Nature Study of the Public Schools should be retained, but the teacher should introduce a more systematic treatment of the subject, with such organization of the material as will lead to simple classification and generalization. The course should be correlated with Geography, Art, English Composition, Manual Training, and Household Science.

For guidance in the methodology of the course, see the High School Manual: SUGGESTIONS FOR TEACHERS OF SCIENCE.

2.—(*a*) Each pupil shall possess a good lens, and be taught how to use it. When desirable, the teacher should use the compound microscope for illustration. Approved methods of collecting and preserving botanical specimens and of keeping live animals suitable for study should be systematically followed. Much of the practical work, including the observations, will necessarily be taken up out of doors by the pupils under the direction of the teacher, or by the pupils conducted by the teacher.

(*b*) The courses in Physics and Chemistry shall be, as far as practicable, experimental, and the pupils should be encouraged to work at home and to prepare simple apparatus.

3.—There should be an aquarium, and every school should have an arboretum and a herbarium. A museum, consisting of specimens illustrative of the courses, should also be established. The pupils should be encouraged to provide specimens from the locality.

4.—No Flora or Fauna is authorized as a text-book for the pupils, but it shall be the duty of the Board to provide in the school library a sufficient supply for the pupils' use. Other works of reference shall also be provided, and the pupils should be encouraged to use them as supplementary reading, never as text-books or as substitutes for original work.

5.—Drawing and systematic written description should be required throughout the courses, the work being systematically supervised by the teacher. *Notes shall not be dictated by the teacher.*

6.—The Science note books should indicate that in the most important particulars the work of the course has been taken up. Until the pupil understands how to record his observations, the teacher may find it desirable to have the notes made in the classroom neatly copied out afterwards; but as soon as practicable this should be discontinued, and *the records should be finally made in the class.* Moreover, while reasonable neatness must be insisted on and drawings are essential, time should not be spent in recording unimportant details or in unnecessary elaboration.

ART: *First Year.*—Mediums: lead pencil, and brush with ink and water colours.

Drawing simple type solids in outline and in light and shade, singly and in groups of two or three.

Freehand perspective as applied to object drawing.

Study of colour: the standard colours, hues of colour, neutralization of colour, scales of tones.

Drawing and painting from the object or from memory: (*a*) natural forms, such as grasses, fruits, flowers, leaves, sprays, trees, birds, insects, etc.; (*b*) manufactured objects of simple form such as boxes, cans, bottles, lanterns, tents, tools, books, furniture, crockery, etc.; (*c*) figure drawing: poses to illustrate ordinary scenes, such as skipping, fishing, playing ball, etc.; (*d*) illustrations (in outline or in silhouette) of school compositions, literature, history or other school work; (*e*) simple landscape, representing phases of the day and the season, with few details.

Composition and space filling including ornamental design and the principles of design.

Lettering (freehand and mechanical).

Original designs for such objects as calendars, festival cards, book covers, menus, sofa cushions, etc., in neutral tones and in colour, based upon (*a*) geometric forms, (*b*) conventionalized natural forms.

Picture study.

Second Year.—Mediums: lead pencil; and brush with ink and water colours. Crayons, coloured chalks, and charcoal (optional).

Drawing pottery in light and shade, singly and in groups, with background and cast shadows.

The principles of perspective and their application to drawing of objects and interiors.

Colour and its harmonies and tone relations.

Drawing and painting from the object or from memory: (*a*) common objects, (*b*) specimens from nature, (*c*) figures posed in small groups to illustrate ordinary scenes, (*d*) landscape subjects.

The principles of composition as applied to pictures and ornamental design.

Composition and space filling including design and the principles of design.

Original designs in neutral tones and in colour, for such objects as wall paper, friezes, curtain borders, floor coverings, portfolio covers, initial letters, etc.; designs for stencils.

Drawing from casts (optional).

Picture study continued.

For the topics of a model seasonal course see Appendix E.

For lists of suitable equipment, see pp. 65 and 66, and Educational Pamphlet No. 5: List of Reproductions of Works of Art.

Notes: 1.—The different parts of the courses may be taken up in whatever order the teacher prefers.

2.—A list of indispensable type solids is given on page 68. Care should be taken not to over-emphasize their value. They are useful only in so far as they lead to careful observation in drawing more interesting objects.

3.—In the first year, the principles of perspective should be learned inductively from observation, and later the laws should be taken up.

4.—Drawings should be from real objects; pictures may be studied for their cultural value and in order to secure correct methods of rendering, but they should not be copied.

5.—The exercises in pose drawing may be made very interesting by allowing the pupils to take their turn, equipped with the necessary accessories.

6.—Illustration lends itself to correlation with other school subjects. A wide choice of subjects should be allowed. The teachers of Literature, Composition, History, Elementary Science and Art may be mutually helpful.

7.—In design, the natural forms drawn and conventionalized in the course of the year should be used as motifs.

8.—The best work of each pupil should be mounted on sheets of uniform size and exhibited at convenient intervals. This work should be kept for inspection, properly labelled with the date and the name of pupil, school, and form.

9.—In selecting pictures for study, regard should be had for the age and stage of advancement of the pupils. At first, pupils should be led to the interpretation of the meaning of the picture by a series of judicious questions; afterwards, matters of technique may be considered in the appreciative criticism of the best pictures of our own and other lands. The school lantern can be made of great service in picture study and in teaching the principles of Art.

10.—As the power to draw rapidly and well is very valuable, the teacher should give frequent exercises in making quick pencil sketches from objects.

Commercial Subjects: *Book-keeping.*—Double and Single Entry, including the use of journal, cash book, sales book, bill book, ledger; financial statements closing books; and the necessary business papers.

Notes: 1.—The minimum course in Book-keeping is contained in sets II, III, IV (or V), VI, and XI (Part I) of the authorized text-book or is the equivalent thereof in character and amount.

2.—In each set and exercise the transactions should be dated according to the calendar of the year in which they are worked out in school. The name of the month in the text-book need not be changed.

Writing.—Correct position and movement.

Principles of letter formation.

Formation of a graceful, legible business hand.

Shorthand.—The theory. Dictation and transcription.

Typewriting.—Copying documents.

Transcription of shorthand notes.

Manifolding, letter-press copying.

MANUAL TRAINING.—*First Year*: Review of the Public School Course as far as the condition of the pupil's knowledge may necessitate.

Drawing and Woodwork.

Second Year: Drawing and any one of the following:

Woodwork, Wood-turning, Forging, and Machine-shop practice.

For the topics and sub-topics of the course see Appendix F and for the equipment, Circular 3.

NOTES: 1.—The Forging and the Machine-shop practice, with their associated drawing, which are now sometimes taken as part of the Manual Training course, properly form part of technical and industrial courses; but, except where comprehensive technical or industrial courses have been established, these subjects are for the present permitted by the Department as extensions of the Manual Training course.

2.—If the pupil has received two years' manual training, approved by the inspector, Wood-turning may be taken instead of Woodwork.

3.—Except by special permission of the Minister, the course in Forging may be taken only by those who have had two years in Woodworking, and that in Machine Shop Practice only by those who have previously taken Forging.

4.—When the pupil has not taken up, or has taken up partially, the Manual Training of the Public School Course, such parts of the subject shall be taken up in the High School, as the teacher may deem necessary.

5.—The most important articles made by each pupil should be kept for the Inspector's examination.

HOUSEHOLD SCIENCE.—*First Year*: Cleaning, cookery, foods, the house, home-nursing, laundry work, sewing.

Second Year: Cookery, foods, marketing, entertaining, household accounts, sewing.

For the topics and sub-topics of the course see Appendix G, and for the equipment, Circular 3.

NOTE.—The most important articles made by each pupil in the course in Sewing should be kept for the Inspector's examination.

AGRICULTURE AND HORTICULTURE.—An elementary practical course:

First Year: Botany, Physics, Gardening, Fruit-growing, Bee-keeping, Arithmetic, Poultry, Dairying, Horticulture, Soil Studies, Insects.

Second Year: Botany, Physics, Chemistry, Gardening, Fruit-growing, Farm Crops, Bee-keeping, Dairying, Horticulture, Insects, Bacteriology, Farm Animals, Rural Economics.

For the regulations and the topics and sub-topics of the courses, see Appendix H.

MIDDLE SCHOOL

ENGLISH COMPOSITION.—The Course of the Lower School in oral and written composition continued and extended.

The study of models of prose-writing systematically taken up towards the close of the course.

Greater attention to the development of literary style.

NOTE.—The Debating and the Literary Society should supplement the work in this subject.

ENGLISH LITERATURE.—Intelligent and appreciative study of suitable authors, both prose and poetry, including those prescribed for the Departmental and University Examinations.

Systematic oral reading of the texts studied in the class.

Supplementary reading provided by the pupils themselves or supplied from the school, public, or other library.

Memorization and recitation of choice selections in prose and poetry prescribed by the Department and of others made by the teacher.

NOTE.—At this stage, the pupils begin to appreciate literature as such. Besides supplementary reading of the same character as that taken up in the Lower School, other works of a subjective character may be added. The purpose and the spirit of the author and the merits of his thoughts and style should now be moderately dealt with; his defects should not be emphasized. The chief object is still the cultivation of a taste for good literature, and the authors should be read partly in class and partly at home, both silently and aloud.

HISTORY.—*British History.* Great Britain and Canada from 1763 to 1885.

The geography relating to the history prescribed.

Ancient History.—General outlines of the history of Greece to the death of Alexander, and of the history of Rome to the death of Augustus, with a brief outline of the art, literature, philosophy, and social life of the Greeks and the Romans.

The geography relating to the history prescribed.

NOTES: 1.—The details of the political history are less important than the causes and the consequences of events; the social life, literature, art, etc., of the peoples, and the careers of their great men. The development of political institutions should, however, receive attention.

2.—As in the Lower School, the work in history should be correlated with that in literature and oral and written composition as well as with that in geography. The great contemporary movements in the history of Europe should be briefly discussed.

3.—The pupils should write short essays on historical subjects. This should involve wider reading than that provided by the authorized school texts.

ALGEBRA.—The course in the Lower School reviewed and continued.

Simple equations of two and three unknowns.

Cube root.

Indices, surds.

Quadratics of one and two unknowns; the relations between their roots and co-efficients.

Simple ratio and proportion.

Simple graphs.

GEOMETRY.—The course in the Lower School reviewed.

A selection of the leading propositions in Elementary Synthetic Geometry.

Exercises and deductions on the propositions of the syllabus, the constructions in Practical Geometry being such as naturally spring from the course in Geometry prescribed for the Middle School.

For the topics of the course, see Appendix C.

LATIN AND GREEK.—The courses in the Lower School in grammar and composition continued.

The authors prescribed for the Departmental and University examinations.

Sight work.

FRENCH AND GERMAN.—The courses in the Lower School in grammar and composition continued.

The authors prescribed for the University examinations.

Sight work.

PHYSICS.—An experimental course defined as follows, and including simple problems:

Electricity and Magnetism: Laws of magnetic attraction and repulsion; magnetic lines of force; phenomena of induction; inclination and declination of the compass.

Production and detection of electricity.

Electrical conductors and insulators; electroscopes and their construction, electrical conduction through air, radioactivity illustrated by means of uranium and thorium salts.

Electrical conduction in liquids: electrolysis, electroplating and electrotyping.

Voltameters, storage and voltaic cells; simple notions of potential, Ohm's Law, electrical units; galvanometers and voltmeters; laws of resistance; divided circuits; experimental determination of current strength, resistance, and electromotive force; current induction and its general laws, the transformer, the induction coil, the dynamo, the telephone, the motor; ether waves, Rœntgen rays, and wireless telegraphy.

Heat.—Nature and sources of heat.

Relation between the volume and the temperature of a gas (Charles' Law); absolute temperature.

Change of state.

Latent heat, specific heat, transmission of heat.

Sound.—Vibrations and transversal vibrations, illustrated with pendulums, rods, strings, membranes, plates; longitudinal vibrations illustrated with rods, strings, and columns of air.

Production, propagation, and detection of sound waves; manometric flames.

Velocity of sound, pitch; standard forks (acoustical C = 512, musical A = 870).

Vibration of air in organ pipes; nodes and loops in vibrating air columns and in vibrating strings; wave lengths and velocity relations.

Laws of vibration of strings. Interference phenomena; beats, resonance.

Reflection and absorption of sound.

Light.—The ether, the wave theory of light, rectilinear propagation, image through a pin hole, beam, pencil; photometry, shadow and grease spot photometers.

Reflection and scattering of light; laws of reflection, images in plane mirrors, and in concave and convex mirrors, drawing of images.

Refraction, laws and index of refraction.

Total reflection.

Path through a prism.

Lenses: drawing image produced by a lens by use of critical rays.

Simple microscope.

Dispersion and colour.

Spectrum; recomposition of light.

Camera.

For lists of suitable apparatus, see pp. 61-64.

CHEMISTRY.—An experimental study of the following elements and their more important compounds: hydrogen, oxygen, sulphur, sodium, potassium, nitrogen, chlorine, bromine, iodine, carbon, calcium.

The course of work should be arranged so as to give the pupils a knowledge of the following:

Mixtures, solutions, compounds, and elements, and their various properties and reactions.

Acids, bases, and salts.

Fundamental laws and principles, as: conservation of mass, definite proportions, multiple proportions, valency, proportions by volume in which gases react.

The quantitative meaning and use of chemical symbols, formulæ and equations.

Chemical nomenclature.

Simple quantitative experiments and problems.

The application of chemistry to the industries, illustrated by an account of the commercial manufacture and use of some of the more important substances included in this course.

ART.—The Lower School course reviewed.

Mediums: Lead pencil, charcoal, coloured chalk or crayons, brush with ink and water colours.

Drawing from the cast.

Drawing and painting of manufactured and natural objects and of landscapes from nature.

Figure drawing.

Modelling in clay or plasticine.

Ornamental design.

Study and drawing of Historic Ornament; styles of Architecture; suitable lettering.

Designing such objects as booklets, book covers, calendars, programmes, book plates, head and tail pieces, initial letters, school announcements, posters, etc.

The study of pictures selected as representatives of the Schools of Art.

For the Regulations see p. 45, and for a list of suitable equipment, see pp. 65 and 66, and Educational Pamphlet No. 5: LIST OF REPRODUCTIONS OF WORKS OF ART.

AGRICULTURE AND HORTICULTURE.—An elementary practical course:

First Course: Botany, Physics, Chemistry, Entomology, Micro-biology, Poultry Husbandry, Bee-keeping.

Second Course: Field Husbandry, Animal Husbandry, Dairy Husbandry, Horticulture, Forestry, Farm Management, Rural Economics.

For regulations and the topics and sub-topics of the courses, see Appendix II.

UPPER SCHOOL

ENGLISH COMPOSITION AND RHETORIC.—The Middle School course continued and extended.

The principles of composition and rhetoric systematically studied.

ENGLISH LITERATURE.—Intelligent and appreciative study of suitable authors, both prose and poetry, including those prescribed for the Departmental and University Examinations.

Systematic oral reading of the texts studied in class.

Supplementary reading provided by the pupils themselves or supplied from the school and the public library.

Memorization and recitation of choice selections in prose and poetry prescribed by the Department and of others made by the teacher.

NOTE.—At this stage, the pupil should be able to read literature still more appreciatively; but the chief object continues to be the cultivation of a taste for good literature, and critical study should be subordinated thereto.

HISTORY: *First Course.*—Outlines of Mediæval History from the Barbarian Invasion to the Discovery of America.

Study in greater detail of the period from the Discovery of America to the death of Queen Elizabeth, 1492-1603.

The geography relating to the history prescribed.

Second Course.—Outlines of Modern History from the death of Queen Elizabeth to the Treaty of Paris, 1603-1763.

Study in greater detail of Modern History from the Treaty of Paris to 1885.

The geography relating to the history prescribed.

For the topics and sub-topics of the course, see Appendix B.

NOTES: 1.—The courses may be taken in the same or in different years.

2.—The subject should be dealt with as in the Middle School, and here in particular the comparative method should be employed, as far as practicable. It is recommended that, in connection with English Composition, each pupil should select one or more historical topics to which he will devote special attention, utilizing for the purpose the books of reference available in the school, public, and other libraries.

ALGEBRA.—The course of the Middle School reviewed and extended.

Theory of divisors.

Ratio, proportion, and variation.

Progressions.

Scales of notation.

Permutations and combinations.

Binominal theorem.

Interest forms, annuities, and sinking funds.

GEOMETRY.—The course of the Middle School reviewed and continued.

An introductory course in Co-ordinate Geometry of the point, the straight line, and the circle.

For the topics of the course, see Appendix C.

TRIGONOMETRY.—The Trigonometrical ratios with their relations to one another; sines, etc., of the sum and difference of angles, with deduced formulæ.

Use of logarithms.

Solution of triangles.

Expression for the area of triangles.

Radii of circumscribed, inscribed, and escribed circles.

LATIN AND GREEK.—The courses of the Middle School in grammar and composition continued.

The authors prescribed for the Departmental and University examinations.

Sight work.

FRENCH AND GERMAN.—The courses of the Middle School in grammar and composition continued.

The authors prescribed for the Departmental and University examinations.

Sight work.

PHYSICS. *Mechanics.*—Measurement of velocity; uniformly accelerated rectilinear motion; momentum; energy, force; metric units of force, work, energy, and power.

Equilibrium of forces acting at a point; triangle, parallelogram, and polygon of forces; parallel forces; principle of moments; centre of gravity; laws of friction.

Numerical examples.

Properties of matter.—An experimental course illustrating the following topics:

Transmutation of energy; conservation of energy; kinetic theory of matter; heat, a mode of motion; absolute temperature; mechanical equivalent of heat.

Fluid pressure at a point, pressure on a horizontal plane, pressure on an inclined plane, resultant vertical pressure and resultant horizontal pressure, when liquid is under air pressure and when it is not; transmission of pressure; Bramah press.

Calculations relating to the preceding.

See the provisions of Regulation 44 (8), Part II.

The flow of fluids and related phenomena:—An experimental course defined as follows:—

Definition of stream line; definition of tube of flow; definition of steady motion; velocity of efflux from an orifice in a vessel containing water: $V^2 = 2gh$ (Torricelli's Theorem); pressure along a tube of flow given by $\rho + \frac{1}{2}\rho V^2 + g\rho h =$ a constant (Bernoulli's Theorem); applications of Bernoulli's Theorem to explain the principle of an atomizer: a bunsen filter pump, a steam injector, the curve of flight of a ball, the Venturi water meter.

Surface tension and capillary phenomena:—A simple experimental treatment of the following topics:—

Experiments showing the existence of surface tension in liquids; the variation of surface tension with the liquid used; the effect of temperature on surface tension; measurement of surface tension of water and other liquids in grams per centimetre or ounces per inch; surface tension due to attractive forces between the molecules; surface tension dependent upon the nature of the surfaces in contact; surface energy measured by $T \times A$ where T is the value of the surface tension and A the area of the surface; surface energy a minimum; the rise and fall of liquids in capillary tubes, the spherical form assumed by small drops; dyeing and filtration, shown to be illustrations of the tendency of surface energy to be reduced to a minimum; pressure within a soap bubble.

CHEMISTRY.—An experimental course defined as follows:

Chemistry of the Middle School reviewed and continued.

Reversible reactions.

Chemical equilibrium.

Rate of reaction and conditions that affect it (including catalysis).

A study of the following elements and their most characteristic compounds, having regard to Mendelejeff's classification and to their most important economic and industrial applications: hydrogen, sodium, potassium, magnesium, zinc, calcium, strontium, barium, aluminium, carbon, silicon, tin, lead, nitrogen, phosphorus, arsenic, antimony, bismuth, oxygen, sulphur, fluorine, chlorine, bromine, iodine, iron, copper.

MINERALOGY.—An experimental course defined as follows:—

A review of the course in Geology included in the Lower School second year course in Geography.

General chemical composition of the earth's crust.

Meaning of term mineral; crystalline state of matter; physical character of minerals, hardness, streak, lustre, specific gravity, studied from actual specimens. Meaning of terms, rock, ore.

The rock-forming minerals, Calcite, Quartz, Orthoclase, Plagioclase, Muscovite, Biotite, Hornblende, Pyroxene, Olivene, studied from hand specimens.

Examination of hand specimens of the following rocks:

Igneous—Granite, Syenite, Diorite, Gabbro, Diabase, Basalt.

Aqueous—Sandstone, Conglomerate, Shale, Limestone.

Metamorphic—Marble, Gneiss, Slate, Schists.

Veins—kinds, how formed, how filled.

Determination of the following with the aid of simple mineral tables:

Magnetite, Hematite, Pyrite, Galena, Gypsum, Halite, Graphite, Mispickel, Pyrolusite, Stibnite, Zinc blende, Chalcopyrite. Occurrences of gold, silver, coal.

Chief deposits of economic minerals in Canada.

NOTES: 1.—Many of the minerals in the above list can be found in any well developed gravel pit or stone pile, or the glacial boulders scattered widely over Ontario. Pupils should be required to make excursions in the neighbourhood of the school for the purpose of obtaining them and observing the geological formations.

2.—The determination of the minerals shall be made by observation of their physical properties and by means of the blow-pipe.

BIOLOGY.—*Zoology*: Practical study of the external form of all types, and the dissection or the study of prepared specimens (or models), as specified below. Observational drawings are essential.

An elementary knowledge of the chief functions of the body—nutrition, irritability, motility, excretion, reproduction—and of the mode of life and the life history of the various types.

Study of the principles of classification in any one group, and recognition of the commonest forms in all.

The Frog: Practical study of the external features; skeleton; visceral dissection; central nervous system; action of a typical muscle. Practical study of a cross-section for arrangement of organ systems. Observation of external features of development.

The Fish: Practical study of the external form; chief visceral organs; circulation and respiration; comparison with frog as to organs of locomotion, circulation, and respiration.

The Reptile: Practical study of the external form of a snake and a turtle. Comparison with a lizard.

The Bird: Practical study of the external form, plumage, and skeleton of some common bird. Adaptations to flight. Modification of bill and foot, in so far as they are of value in distinguishing the different chief types.

The Mammal: Practical study of the chief features of the skeleton, the visceral organs, and the chief divisions of the brain of a rabbit or a cat. Major characteristics of mammalian dentition and foot structure, as illustrated by the pig, horse, sheep, rabbit, dog, mole, and bat.

The Worm: Practical study of the external features, and dissection of the earth-worm. Study of cross-section for arrangement of chief organ systems only.

The Arthropod: Practical study of the external form of the crayfish, including segmentation and appendages. Comparison of the external form of the crayfish, grasshopper (or cricket), millipede, and spider.

The Mollusc: Practical study of the external form, and mode of locomotion and respiration, of the fresh-water clam; comparison in these respects with the snail.

The Protozoan: A practical study of the living amœba or paramœcium.

NOTE.—Dissection of at least the Frog and the Earth-worm by the pupil will be required. In other cases, prepared specimens or models may be used. Cross-sections should be studied with the low power microscope.

BOTANY: General types of the great natural groups of plants; classification.

Morphology: Morphology of seed, root, stem, leaf, flower, and fruit. A study of the cellular structure of the leaf and of the relative arrangement of the more important tissues and tissue-systems of the stem and root (as shown by sections) of bean and maize, or of any other typical dicotyledon and monocotyledon.

Physiology: Practical studies of absorption (osmosis), plasmolysis, transpiration, photosynthesis, respiration, irritability (e.g., heliotropism), growth and movement. An elementary knowledge of the phenomena of fertilization and reproduction.

Ecology: Modifications of organs for special functions. Seed dispersal. Light relations. Pollination and adaptations for cross-pollination. Plant associations, e.g., mesophytes, hydrophytes, xerophytes.

Cryptogams: The practical study of representatives of the chief subdivisions of the cryptogams; spirogyra, chara, a mushroom, a lichen, a liverwort, a moss, a horsetail, a clubmoss, and a fern. Distribution and economic importance of yeasts and bacteria. Microscopic structure of the yeast cell; reproduction by budding. Macroscopic observation of a bacterial colony.

Phanerogams: The practical study of representatives of the seed plants of the locality, including at least one member of each of the following orders:—

Coniferae, Caryophyllaceae, Ranunculaceae, Cruciferae, Rosaceae, Leguminosae, Sapindaceae, Umbelliferae, Ericaceae, Labiatae, Scrophulariaceae, Borraginaceae, Compositae, Gramineae (so far as the structure of the flower and stem is concerned), Liliaceae.

NOTE.—As form becomes intelligible only in the light of a knowledge of function and adaptation, the physiological and ecological studies should be taken up in appropriate connection with the morphological studies. The making of faithful and neat records of observations is also a most important adjunct. In many cases, these should be expressed as drawings, but it should be borne in mind that this drawing loses its value as an educative factor unless there be an insistence on absolute accuracy and the careful naming of all the features represented. Judgment should, therefore, be exercised by the teacher in requiring no more than can be done well.

GRADUATION DIPLOMAS

17.—(1) High School Graduation Diplomas may be awarded to pupils whose conduct has been satisfactory, and who have completed the prescribed courses, as follows:

(*a*) A Junior Diploma, for a General Course of four years, the course for admission to the Normal Schools or the Junior Matriculation Course for admission to the Universities.

(*b*) A Senior Diploma, for the course for admission to the Faculties of Education, or a Junior Matriculation course for admission to the Universities with at least second class honours in any two of Classics, Mathematics, French and German, Science, English and History.

(2) Each Graduation Diploma shall specify the course the candidate has taken.

(3) For these Diplomas, the Boards may hold their own examinations or may accept the University or the Departmental examinations.

(4) All Diplomas shall be signed by the Chairman of the Board of Trustees and the Principal of the school.

NOTE.—Forms for the Graduation Diplomas may be obtained on application to the Deputy Minister.

INSPECTION

Powers and Duties of Continuation School Inspectors

18.—(1) (*a*) Every Continuation School Inspector, while officially visiting a school, shall have supreme authority in the school, and may direct teachers and pupils in regard to discipline or to any or all of the exercises of the school.

(*b*) He shall make enquiry and examination, in such manner as he may think proper, into the qualifications and the efficiency of the staff, the adequacy and the suitability of accommodations and equipment of the school, and all matters affecting the progress and the health and comfort of the pupils.

(*c*) He shall report to the Minister, with his recommendations, the result of his enquiry and examination, within ten days after the close thereof. He shall also from time to time report any violation of the Schools Act or the Regulations in the case of the schools of which he is Inspector.

(*d*) He shall notify the Public or the Separate School Inspector, as the case may be, of the date of his proposed visit to a school.

(2) The following schedule prescribes the number of days to be devoted, as far as practicable, by the Inspector to each class of school:

	No. of days
Grade C	1
Grade C, having an assistant teacher giving half time to Continuation School work	1½
Grade B	2
Grade A	2½

Pupils' Work

19.—(1) The courses in which practical work is prescribed shall be taken up practically throughout by the pupils and shall be satisfactory to the Inspector or Director.

(2) The exhibits of the pupils' practical work for each year in Art, Manual Training, and Sewing, and their note-books in the Elementary Science of the Lower School, prepared as prescribed by the Regulations, shall be collected by the Principal at the end of June, and held for the Inspector's examination and rating.

(3) (*a*) All exhibits of the pupils' practical work should indicate, by an intelligible system of dating, when it was done; and the work submitted for inspection should, as far as convenient, be arranged in the order in which it was finished.

(*b*) The first year work and the second year work of each pupil shall be kept separate.

DISTRIBUTION OF LEGISLATIVE GRANTS

The following are the schemes for the distribution of the Legislative grants:

GENERAL GRANTS

Organized Counties and Districts

1.—(1) (*a*) The General Legislative Grants to Grade A Schools, which had three teachers before December 31st, 1909, shall, after September 1st, 1915, be distributed on the same bases as are the General Grants to High Schools with the same number of teachers, in *High School Regulations* 1, 3, and 4, pp. 45-47.

(*b*) For the current school year (September, 1914, to June, 1915) the Legislative Grants to the Grade A Schools above shall be as follows:

Fixed Grant, $300.00.

On Salary, 15 per cent. of the excess of the three teachers' salaries over $1,500; maximum grant, $275.00.

On equipment, 6 per cent. of the value; maximum grant, $100.00.

On accommodation, on the same bases as Grade B Schools; maximum grant, $66.00.

(2) (*a*) The Legislative grant to other Grade A schools and to Grade B and Grade C schools in the organized counties shall be the total of the sums apportioned on the different bases set forth below in the case of each grade.

2. The yearly apportionment by the Minister of the Legislative Grant to each Continuation School in the Districts shall be twice the total of the sums apportioned on the different bases set forth in the case of each grade, in the organized counties.

3.—(1) All sums received by a Board of Trustees for the maintenance of the Continuation School shall be expended on said School alone.

(2) Continuation Schools shall not share in the General or the Special Legislative Grants to Public and Separate Schools.

(3) A financial statement shall be submitted by each Board to the Minister on or before January 15th of each year, in a form to be provided by the Department showing the receipts and expenditures on this account, with such additional particulars as the Minister may require.

NOTE.—It is not the policy of the Department to approve of the maintenance or establishment of Continuation Schools with more than two teachers. Localities able to maintain such schools should establish them under *The High Schools Act.*

The following is the scheme for the distribution of the General Legislative Grants:

Fixed Grants

4.—(*a*) For Grade C.

(i) When the equivalent of the time of one teacher is given to the work	$100.00
(ii) When the whole time of one teacher and at least one-half the time of an assistant teacher is given to the work	150.00
(*b*) For Grades B and A	200.00

On Salaries

5.—(*a*) For Grade C, 20 per cent. of the excess of the Principal's salary over $400; maximum grant, $120; and

(*b*) (i) 20 per cent. of the excess of half the Assistant's salary over $200; maximum grant, $60.

(ii) No grant will be made on the salary of an assistant teacher unless he devotes at least half his whole time to the work of the Continuation School.

NOTE.—As half the time of the Assistant is given to Public School work, only half his yearly salary may be charged for services to the Continuation School.

(*c*) For Grades B and A, 20 per cent. of the excess of the salaries over $800 of the Principal and the Assistant or of the Principal and one Assistant with the next highest salary, as the case may be; maximum, $240.

On Accommodations

6.

GRADE C SCHOOLS

Grade	Closets	Water supply	School premises	School building	Class-rooms	Laboratory	Halls	Waiting-rooms	Cap-rooms	Teachers' rooms	Desks and laboratory tables	Blackboards	Lighting	Heating	Ventilation
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
I	2 00	1 00	.....	.....	6 00	.....	.....	.....	1 00	1 00	3 50	1 00	1 25	1 25	2 00
II	1 50	75	.....	.....	4 50	.....	.....	.....	75	75	2 75	75	1 00	1 00	1 50
III	1 25	50	.....	.....	3 50	.....	.....	.....	50	50	2 25	50	75	75	1 25
IV	1 00	25	.....	.....	2 75	.....	.....	.....	25	25	1 75	25	50	50	1 00

GRADES A AND B SCHOOLS

I	4 00	2 00	9 00	4 00	15 00	2 00	2 00	2 00	2 00	2 00	6 00	2 00	4 00	4 00	6 00
II	3 00	1 50	6 75	3 00	11 25	1 50	1 50	1 50	1 50	1 50	4 50	1 50	3 00	3 00	4 50
III	2 00	1 00	4 50	2 00	7 50	1 00	1 00	1 00	1 00	1 00	3 00	1 00	2 00	2 00	3 00
IV	1 00	50	2 25	1 00	3 75	50	50	50	50	50	1 50	50	1 00	1 00	1 50

On Equipment

7.—(1) In respect of equipment, eight per cent. of the total approved expenditure, but so as not to exceed $60 in the case of Grade C Schools, and $98 in the case of Grades A and B Schools.

(2) In apportioning the Legislative grant on equipment the maximum values recognized for each grade of schools shall be as follows:

(*a*) For Grade C Schools: Library, $300; Scientific Apparatus, $300; Biological Specimens, $50; Maps, Charts, Globes, etc., $50; Art Models, $50.

(*b*) For Grades A and B Schools: Library, $450; Scientific Apparatus, $450; Biological Specimens, $75; Maps, Charts, Globes, etc., $75; Art Models, $75; Typewriters, $100.

SPECIAL GRANTS

Middle School Art

8.—(1) On the following conditions, an annual grant of $100 will be made by the Department to the teacher of the Middle School Course in Art who holds a certificate as Specialist in Art from the Department, and an additional $100 if he holds also the diploma of A.O.C.A. from the Ontario College of Art:

(*a*) The Inspector's report of the equipment, organization, teaching, and the pupils' exhibits of work shall be favourable.

(*b*) The Course shall be taken for at least one school year, and the provision therefor in the teacher's time-table shall be at least three periods a week of one hour each, part of which may be taken out of doors for landscape drawing and painting.

(*c*) The class shall consist of at least six members in regular attendance, who have already completed satisfactorily to the Principal the Lower School Art Course.

(2) The Board whose Art teacher has earned the special grant provided above, shall purchase before the close of the current calendar year at least $100 worth of works of Art, approved by the Continuation School Inspector and selected from the lists contained in Educational Pamphlet No. 5: List of Reproductions of Works of Art. Towards the cost of this purchase, duly certified by the Continuation School Inspector, the Department will make a special grant of $50.

Manual Training and Household Science

DAY CLASSES

9.—(1) (*a*) No grant shall be made for Manual Training unless at least provision has been made for wood-working and the associated drawing; or for Household Science unless at least provision has been made for sewing, cookery, sanitation, and hygiene.

(*b*) When the provision for the higher Manual Training or Household Science is less than the time of one teacher for five hours and a half for each of five days a week, the General Grant under (3) (*a*) below will be correspondingly decreased; when it is greater, it will be correspondingly increased.

(*c*) No grant shall be paid on the equipment of a Manual Training or Household Science centre in which there has been no class for more than one year.

(2) The Legislative Grants for each centre that complies with the Regulations shall be apportioned as follows:—

(*a*) An Annual General Grant for Manual Training of $200 and for Household Science, of $120.

(*b*) Ten per cent. of the annual expenditure for teachers' salaries over $600, to a maximum of $200.

(*c*) (i) For Manual Training, for the first year, 40 per cent. of the value of the equipment to a maximum of $880; and, for each of the three years following, 20 per cent. to a maximum of $440.

(ii) For Household Science, for the first year, 40 per cent. of the value of the equipment to a maximum of $400; and, for each of the three years following, 20 per cent. to a maximum of $200.

(*d*) An Annual Grant on the character of the special accommodations for the higher work according to the following scheme of grades:

Manual Training

	I	II	III	IV
Wood-working and Wood-turning Shop	$10 00	$7 50	$5 00	$2 50
Forge Shop	10 00	7 50	5 00	2 50
Machine Shop	10 00	7 50	5 00	2 50
Combination Forge and Machine Shop	15 00	11 25	7 50	3 75
Stock Room	5 00	3 75	2 50	1 25
Teachers' Room	3 00	2 75	1 50	75
Blackboards	2 00	1 50	1 00	50
Lighting	2 00	1 50	1 00	50
Heating	2 00	1 50	1 00	50
Ventilation	2 00	1 50	1 00	50
Cloak Rooms and Lavatories	4 00	3 00	2 00	1 00

Household Science

Kitchen	$10 00	$7 50	$5 00	$2 50
Pantry, Cupboard, and Storeroom	5 00	3 75	2 50	1 25
Dining Room	10 00	7 50	5 00	2 50
Sewing Room	10 00	7 50	5 00	2 50
Teachers' Room	3 00	2 75	1 50	75
Blackboards	2 00	1 50	1 00	50
Lighting	2 00	1 50	1 00	50
Heating	2 00	1 50	1 00	50
Ventilation	2 00	1 50	1 00	50
Cloak Rooms and Lavatories	4 00	3 00	2 00	1 00

(3) (*a*) In the distribution of the grant for Manual Training, the maximum recognized value of the equipment for the different departments shall be as follows:—

Wood-work, $500.
Wood-turning, $300.
Forging, $500.
Machine Shop Practice, $800.
Library, $100.

(*b*) In the distribution of the grant for Household Science, the maximum recognized value of the equipment for the different departments shall be as follows:—

Cookery, Sanitation, and Hygiene, $500.
Hand and Machine Sewing, $250.
Laundry Work, $150.
Library, $100.

(6) When an equipment on which the legislative grant has been paid to its full value remains unused for two years the Minister may direct the transfer of said equipment to one of the other centres in the Province.

NIGHT CLASSES

10. The Department will pay the following proportions of the total salaries of the staffs of the Household Science and Manual Training Night Classes:—

In cities with population of 150,000 and over, one-sixth; in other cities, one-third; in towns, one-half; and in villages and rural Continuation School districts, two-thirds.

Agriculture and Horticulture

LOWER AND MIDDLE SCHOOL

11. On the report of the Director that the Regulations have been satisfactorily complied with, the Department will pay the following grants:

(1) An annual grant, not exceeding $100.00 in each case, will be paid to the Board for carrying on the Lower and the Middle School Courses respectively.

(2) *a*) An annual grant of $120 will be paid to the holder of a High School professional certificate and the degree of B.Sc. (Agr.) for carrying on the Lower and Middle School courses respectively, for the calendar year, or of $60 for each course carried on to the end of June, or of $40 for the remainder of the year.

(*b*) An annual grant of $80.00 will be paid to the science teacher who holds an Intermediate certificate, or to a District Agricultural Representative or an Assistant District Agricultural Representative of the standing of the Third year in the Ontario Agricultural College, for the Lower and Middle School courses respectively carried on for the calendar year, or of $40.00 for each course carried on to the end of June, and of $30.00 for the remainder of the year. For carrying on the course in more schools than one, the Agricultural Representative will be paid two-thirds of the regular grant for each additional school.

(3) For conducting experimental and demonstration plots on the school grounds in connection with the class-room and laboratory instruction in the Lower and Middle School courses respectively, a grant of $25.00 additional will be paid to the teacher or Agricultural or Assistant Agricultural Representative in addition to the salary paid by the School Board, and a grant, not exceeding $25.00 for each course, to the Board.

(4) The grants will be apportioned on the reports for the calendar year.

(5) The accounts for the work shall be kept separate from the general school expenditure, and a financial statement shall be submitted on a special form by the Secretary to the Minister at the end of December. The totals of the receipts and expenditures shall, however, also be included in the General Financial Statement of the Board to the Department of Education. No grants can be paid to a school until these reports are received.

(6) The legislative and any municipal grants to the School Boards for Agricultural Education are made solely for the purpose of promoting the cause of agriculture and horticulture in the community through the work of the school, and may be expended as follows:

(*a*) The grant of $100.00 for the general work:

For agricultural or horticultural books or charts, for subscriptions to journals on farming, dairying, gardening, beekeeping, poultry keeping, etc.; for the purchase of Babcock milk testers, spraying equipment, pruning and grafting appliances, school bee-hives, accessories for handling bees, incubator and models for poultry equipment, apparatus for soil, bacteriological or chemical experiments; for providing vegetable and flower seed or seed grain required by pupils in their home projects; for printing instruction sheets, announcements regarding plans for work, competitions, etc.: for meeting the expenses of the teachers or committee acting with the teacher in the supervision of the work, and for such other purposes as may be approved by the Minister.

(*b*) The special grant of $25.00 for the support of the special experimental and demonstration plots at or in connection with the schools:

For preparing the ground by manuring, cultivating or draining; for the rental or leasing of additional land adjacent to the school grounds; for the purchase of equipment such as tools, lines, labels, hot bed, cold frame or such other things as may be needed in carrying on the experiments; for the purchase of fertilizers or planting material, such as seeds, roots, bulbs, seedling trees or shrubs, or cuttings to be used in experiments or demonstrations; for the expense of caring for the plots during the summer holidays; and for such other purposes as may be approved by the Minister.

Physical Culture

GRANTS BY DEPARTMENT OF MILITIA AND DEFENCE, OTTAWA

12.—(1) For the training of a Cadet Corps during the school year in a Continuation School an annual allowance of $1.00 per cadet will be paid by the Department of Militia and Defence, Ottawa, on the following conditions:

(*a*) The Cadet Corps shall consist of at least 20 boys, who shall be at least twelve and not more than eighteen years of age.

(*b*) The Instructor shall possess a certificate of Military Instruction from the Department of Militia and Defence, Ottawa, or be otherwise qualified in accordance with the Cadet Regulations.

(*c*) The work of the Cadet Corps shall be reported to the Minister of Militia and Defence, Ottawa, and the Minister of Education, Toronto, as satisfactory on inspection by a Military Inspecting Officer of the Department of Militia and Defence.

(*d*) The allowance will be calculated on the number of enrolled cadets present at the annual inspection, with the addition of those whose absence can be satisfactorily accounted for to the Inspecting Officer.

(*e*) In the case of Cadet Corps authorized subsequently to March 1st in any year, the proportion of the above allowance, if any, that may be paid will be decided at Militia Headquarters.

(*f*) All claims are to be submitted to Militia Headquarters for approval, before payment can be made.

(2) Should the Inspecting Officer be unable to give a certificate of efficiency to a Cadet Corps at the Annual Inspection, he may recommend a special allowance for the Cadet Instructor. In estimating the amount of this special allowance, the Inspecting Officer will take into consideration the number of drills performed and the number of cadets partially trained. In no case may this special allowance exceed one-half the allowance authorized for an efficient corps.

(3) Upon the certificate of the Inspecting Officer a grant towards the provision and upkeep of uniform of $1.00 for each cadet inspected in a complete, serviceable, military uniform, will also be paid annually by the Department of Militia and Defence, Ottawa, to the School Board providing such uniform or to the cadet who has himself provided it. Claims for such allowance must be approved at Militia Headquarters.

GRANT BY DEPARTMENT OF EDUCATION, ONTARIO

13. Where a Cadet Corps has been duly established in connection with a Continuation School, an additional annual grant of $50 will be paid to the School Board by the Ontario Department of Education on the following conditions:—

(1) There shall be at least 20 pupils in the Corps who shall be at least sixteen and not over eighteen years of age.

(2) (*a*) The Instructor of each cadet company shall be either a school teacher holding a cadet instructor's certificate, or an officer of the Active Militia or on the retired list or a non-commissioned officer of the militia, qualified as a Sergeant at a Royal School of Military Instruction, or any creditably discharged non-commissioned officer from His Majesty's Imperial Forces or from the Permanent Force of Canada.

(*b*) After September, 1915, the Instructor shall hold a certificate as Specialist in Physical Culture granted by the Department of Education.

(3) The work in Physical Culture of the whole School shall have been reported as satisfactory to the Minister by the School Inspector.

(4) The grant of $50 shall be treated as an addition to the Instructor's ordinary salary or shall be expended on the equipment for Physical Culture, as the Board may determine.

CONTINGENCY OF GRANTS

14.—(1) If in any year the amount voted by the Legislature of Ontario for any of the services recognized in Regulations 1-13 above is insufficient to pay the grants in full, or if there is a balance over, the Minister may make a *pro rata* reduction or increase.

(2) On the report of the Inspector or Director that the equipment or the accommodations of a Continuation School are inadequate or unsuitable, or that one or more members of the staff are inefficient or not legally qualified, such reductions may be made in the grants payable upon the equipment, the accommodations, and the salaries of the staff, as the Minister may deem expedient.

(3) On the report of the Inspector or Director that a regulation governing a Continuation School has been culpably violated, such reduction may be made in the total grant payable to the School as the Minister may consider expedient.

NOTE.—Owing to the disturbance of the financial conditions, less money is now at the disposal of the Department. Reductions have, accordingly, been made in some of the schemes for apportioning the Legislative Grants.

AUTHORIZED TEXT-BOOKS

1. As specified therein, the text-books listed in Schedule A below, and the accompanying Blank Books listed in B below, shall be authorized for use in Continuation Schools. In Schedule C are listed the manuals provided for teachers' use and for school libraries.

2. The publishers shall sell direct, in any quantity, to any purchaser for use in Ontario, the books listed in Schedules A and B below, at 20 per cent. less than the maximum prices named in the aforesaid schedules.

3. As may be determined by resolution of the Board, the following, as prescribed by the Regulations and as selected by the Principal, shall be purchased by the pupils or provided by the Board of School Trustees in the school library for the pupils' use in numbers satisfactory to the Inspector:

(1) The four books in English Literature to be read by candidates preparing for a Departmental Examination;

(2) Supplementary Reading for all the Forms.

4. No text-books are authorized in Art, Biology, Agriculture and Horticulture, Manual Training, or Household Science, but suitable reference books, selected by the Principal and approved by the Inspector, shall be provided in the school library by the Board of School Trustees for the pupils' use in numbers satisfactory to the Inspector.

5. For Religious Instruction in Continuation Schools, the Sacred Scriptures, or the Selected Scripture Readings of the International Sunday School Association, or the Scripture Readings adopted by the Department of Education shall be used as prescribed by the Regulations of the Department of Education.

6. The edition of the High School French Grammar which was used in any school during the school year ending the thirtieth of June, 1914, and the continued use of which was recommended by resolution of the Board of School Trustees passed on or before the reopening of the schools in September, 1914, and communicated promptly thereafter to the Minister of Education, shall be deemed authorized for any of the classes of such school at the former maximum price, until the first of July, 1915. In all other cases the Principal shall introduce the text-books authorized herein which are not already in use in his school.

7. For the High School Upper School any books may be used which have been recommended by the Principal and approved by resolution of the Board of School Trustees. If no change has been made since the passing of this resolution, another resolution is not necessary.

8.—(1) The Principal shall submit to the Inspector at his official visit a copy of each of the resolutions provided for in 3, 6, and 7 above, duly dated and certified by the Secretary of the Board of School Trustees.

(2) It shall be the duty of the Inspector to see, at his first visit to each school, that the resolutions of the Board of School Trustees referred to above have been duly passed, and, when necessary, from time to time thereafter, that the provisions of the aforesaid regulations have been duly carried out in the school.

9. Books authorized for use in Public and Separate Schools are authorized for use by pupils taking the corresponding subjects in the Lower School of the Continuation Schools.

10. Any edition of the Literature texts in English, French, or German prescribed for the examinations of the Department of Education or for Matriculation into the University of Toronto, may be used in the schools with the approval of the Principal; but no annotated edition of such texts used in the Lower and Middle Schools shall cost more than 25 cents.

11. Boards shall provide in the school library a supply of the High School Flora, or of other Floras, and of the authorized Laboratory Manuals in Chemistry and Physics sufficient for class use by the pupils; but pupils shall not be required to buy them.

12. The price of any blank book specially prepared for exercises or for recording notes in Science or any other subject shall not exceed 25c.

13. For Special Middle School Art Work, in addition to the authorized blanks, any other drawing paper may be used when deemed necessary by the Principal.

SCHEDULE A

Text Books Authorized

English:

Ontario High School Reader. The Canada Publishing Co., Ltd.	$0.40
Ontario High School English Grammar. The Canada Publishing Co., Ltd.	.45
Ontario High School English Composition. The Copp, Clark Co., Ltd.	.18

History and Geography:

Ontario High School Physical Geography. The Macmillan Co. of Canada, Ltd.	.60
Ontario School Geography. Educational Book Company of Toronto, Ltd.	.65
Ontario High School Ancient History. The Macmillan Company of Canada, Ltd.	.75
Ontario High School History of England. The Macmillan Company of Canada, Ltd.	.65
Ontario High School History of Canada. The T. Eaton Co., Ltd.	.19

Mathematics:

Ontario High School Arithmetic. The Hunter-Rose Company, Ltd. $0.40
Hall and Knight's Junior Algebra. The Macmillan Company of Canada, Ltd. (*Authorization expires midsummer,* 1915) .... .50
Ontario High School Geometry. The Copp, Clark Co., Ltd..... .40

Classics:

Ontario High School Latin Book. Educational Book Company of Toronto, Ltd. 60
White's First Greek Book. (*Authorized until further notice. Supplied by The Copp, Clark Co., Ltd.*) 1.25

Moderns:

Ontario High School French Grammar. The Copp, Clark Co., Ltd.. .60
Ontario High School French Reader. The T. Eaton Co., Ltd. .... .11
High School German Grammar. The Copp, Clark Co., Ltd. ..... .70
Ontario High School German Reader. William Briggs ..... .13

Science:

Ontario High School Physics. The Copp, Clark Co., Ltd. ..... .90
Ontario High School Laboratory Manual in Physics. The Copp, Clark Co., Ltd. 35
Ontario High School Chemistry. The Macmillan Company of Canada, Ltd. 40
Ontario High School Laboratory Manual in Chemistry, The Macmillan Company of Canada, Ltd. ..... .20

Book-keeping:

Ontario School Book-keeping—First Course. Educational Book Company of Toronto, Ltd. 30
Ontario School Book-keeping—Second Course. Educational Book Company of Toronto, Ltd. (*Authorized for the second and subsequent years of the Course in Book-keeping*) 1.00

Writing:

Ontario Writing Course. E. H. Harcourt Co., Ltd. ..... .05

SCHEDULE B

Blank Books Authorized

*Ontario School Book-keeping Blank. Educational Book Company of Toronto, Ltd. $0.12
*Ontario Pupils' Outfit in Business Papers. Educational Book Company, Ltd., Toronto ..... .08
Ontario Blank Copy Books. E. H. Harcourt Co., Limited ..... .02
Ontario Blank Drawing Book, No. 2. W. J. Gage and Co., Ltd..... .05

*The two Blanks may be obtained in one packet at 20 cents.

SCHEDULE C

Teachers' Manuals

The Department publishes Manuals for Teachers dealing with methodology and containing supplementary material for their use in class. These Manuals are distributed free amongst the school libraries, and teachers may obtain copies at the prices given below, on application to the Deputy Minister. The following Manuals have been published:

Suggestions for Teachers of Science, 50 cents.
English Composition, 15 cents.

Special Notice to Teachers and School Boards

14. The teacher himself may use any book, pamphlet, or magazine he wishes in preparing the lesson for his class; but he has no authority to use as text-books in his class-teaching any other publications than those whose use is authorized above or which are listed in the catalogue of the school library with the approval of the Inspector. Nor can Notes on History, Geography, etc., School Helps, or similar publications be used by his pupils in their work at school; and neither the teacher nor the board has any authority to require or induce pupils to buy any of such prohibited books, pamphlets, magazines, Notes, School Helps, or other similar publications.

NOTE.—The Regulations governing the use of text-books in Commercial and Agricultural High Schools and Courses and in Industrial, Technical, and Art Schools and Courses, will be contained in the Manual dealing with Vocational Schools and Courses.

TEACHERS' INSTITUTES

1. Under *The Public Schools Act* (see Part III), on the report of the Public School Inspector or the Inspectors, as the case may be, and with the approval of the Minister and subject to his instructions from time to time:

(1) The teachers of an Inspectorate may organize themselves into one or more Institutes for the purpose of receiving instruction in methods of teaching and of discussing educational methods; and

(2) The teachers of two or more Inspectorates may organize themselves into one Institute.

2.—(1) The officers of an Institute shall be a President, a Vice-President, a Treasurer and a Secretary or a Secretary-Treasurer, and when necessary a Librarian.

(2) The President, the Vice-President, the immediate Past-President, and the Inspector or Inspectors, as the case may be, together with not more than six other members to be chosen annually in whatever manner the members of the Institute may decide, shall constitute the Executive Committee.

(3) In addition to the powers and duties assigned herewith to the Executive Committee it shall have such other powers and perform such other duties in connection with the work of the Institute, as the Institute may assign to it.

(4) The Institute may also appoint committees for special purposes.

3.—(1) Each Institute shall hold at least one annual meeting on a Thursday and a Friday at a centre to be determined by the Executive Committee. When a lecturer is provided by the Department, the Minister will fix the dates of the meetings. In other cases they shall be fixed by the Executive Committee of the Institute.

(2) Each Institute shall hold two day sessions each day and one evening session, the length of each to be determined by the Executive Committee.

(3) (*a*) In order that the teacher may attend the annual meeting of the Institute prescribed in (1) above, he shall close his school on the days appointed for said meeting.

(*b*) Additional evening meetings and, when permitted by the Board of School Trustees concerned, additional day meetings on school days may also be held throughout the year as may be arranged for by the Executive Committee.

(4) In order to allow meetings of the teachers of a graded school for school business and mutual improvement, the Board may authorize said teachers to close their schools at 2.30 or 3 p.m. on certain specified school days.

(5) In cities where more Institutes than one have been established, the members of the different Institutes shall attend in one body an evening meeting, and at least one day session at which may be discussed matters of interest to all the teachers of the city. The arrangements for such meetings shall be made by joint action of the Executive Committees, and the Presiding Officer and the Secretary of the combined meetings shall be the President and the Secretary who have had longest experience as educationalists.

(5) In Institutes consisting of the teachers of more than one municipality one or more of the day sessions and an evening session may be held at the discretion and under the direction of the Inspector at some school or schools or other suitable building or buildings in each of the municipalities.

(6) The members of an Institute may meet in one body or in Grade sections as may be determined from time to time by the Executive Committee, with such organization in the case of Grade sections, as may be determined by the members thereof.

4.—(1) The Public School, the lay Roman Catholic Separate School, and the Continuation School Grade C teachers, whose schools are situated within the Inspectorate or Inspectorates constituting an Institute shall become members thereof and shall attend all the meetings promptly and regularly.

(2) Registration as members of, and attendance at, an Institute on the part of teachers of Roman Catholic Separate Schools who are members of Religious Orders are optional, but are strongly recommended by the Minister.

(3) Attendance is optional on the part of the teachers of Continuation Schools, Grades A and B, but attendance is strongly recommended by the Minister. The Principals of such schools may close one or more of the school grades for all or part of the time of the Institute meetings to allow the staff or members thereof to take part in the business, and the teachers so set free shall attend the meetings under the same conditions as the ordinary members.

5. For reasons satisfactory to his Inspector in the case of Public, Separate, or Grade C Continuation School teachers—

(1) A teacher may be excused from attending all or any of the meetings of the Institute.

(2) A teacher may attend the Institute meeting of an adjoining Inspectorate in lieu of the meeting of the Institute to which he would properly belong.

6.—(1) It shall be the duty of the Public, Separate, or Grade C Continuation School teacher who absents himself from any of the sessions of the Institute, or from any part thereof, to report to his Inspector such absence with the reason therefor.

(2) It shall be the duty of the Inspector concerned—

(*a*) To take such measures to secure prompt and regular attendance during the meeting of the Institute as may, in his judgment, appear to be necessary; and

(*b*) To report to their respective School Boards, and, when in his judgment necessary, to the Minister, teachers who, for reasons unsatisfactory to the Inspector, have absented themselves from any part of the day or evening sessions or who

have not complied with the provisions of (1) above, and to take such other steps as may appear to him to be desirable.

NOTE.—The Institutes are maintained for the professional improvement of teachers. To this end the schools are closed for two days, grants are made by the Legislature and the municipalities, and free instruction is provided by Departmental lecturers. Accordingly, teachers owe it to the public and to themselves to take full advantage of the opportunities thus offered, by diligent application to the work of the Institute and prompt and continuous attendance at its meetings.

7.—(1) The programme of the work to be taken up by the Institute shall be prepared by the Executive Committee.

(2) The programme shall be sent at least two weeks before the day of the meeting to the members of the Institute, the Boards of Trustees employing them, and the Minister.

NOTE.—As heretofore, the Department will continue to supply a lecturer, but the responsibility for the efficiency and success of the Institute devolves upon the members, who should construct a programme that will be both instructive and interesting, having due regard to the object of the Institute as set forth in the section of the Statute quoted above.

8. With the approval of the Minister the Executive of an Institute may substitute for all or part of the annual meeting a visit of inspection by the members of the Institute to other schools or institutions of an educational character.

9. An annual membership fee, not exceeding one dollar, may be fixed by the Institute. The fee when so fixed shall be compulsory and shall be paid on or before the first day of the Institute meetings. Only members who have paid it shall be eligible for office or entitled to vote.

10. The Legislative grant and its municipal equivalent and any other receipts shall be used in defraying the necessary expenses of conducting the Institute. These expenses may include the payment of special lecturers, the whole or part of the cost of a professional magazine for each member, and the provision of one or more professional libraries for the use of the members.

11.—(1) Two auditors shall be appointed annually by the members of the Institute at their annual meeting.

(2) There shall be sent not later than December 31st of each year to the Minister and to the Council or the Board, as the case may be, of the body providing the equivalent of the Legislative grant:

(*a*) A report of the total registered attendance and the total number of teachers of each class eligible for membership, computed under 4 above;

(*b*) A report in detail of the receipts and expenditure for the preceding year, with a copy of the report of the auditors as adopted by the Institute; and—

(*c*) A certificate that the above Regulations which are obligatory have been duly observed.

12. It is desirable that each Institute should appoint at least one of its members to represent it at the next ensuing meeting of the Ontario Educational Association. [See Section 25 (*d*) of *The High Schools Act.*]

EQUIPMENT

LABORATORIES

LOWER SCHOOL

Physics and Chemistry

		Probable Cost
1	Metric Scale, one foot long. The ordinary School rulers graduated in inches and centimeters will answer	$0 02
1	Meter Stick	0 50
1	Caliper, Simple form	0 50
1	Dissected Litre Block	2 00
1	Pinch-Cock	0 15
1	Burette, Mohr's, 50 C.C. graduated in tenths	2 00
1	Measuring Cylinder, 100 C.C. graduated	0 80
3	Beakers, different sizes	0 55
1	Air Pump and Receiver	10 00
1	Elastic Rubber Balloon. A toy balloon answers well	0 10
1	Pendulum Bob	0 25
1	Physical Balance, with set of Metric Weights	8 50
1	Spirit Lamp or Bunsen Burner	0 40
1	Spring Balance	0 50
1	Glass Battery Jar, 9 in. deep, 8 in. diam.	0 50
1	Mortar and Pestle	0 35
2	Thistle Tubes Each 15c.	0 30
1	Transmission of Pressure Apparatus	0 75
1	Archimedes' Principle	1 75
1	Globe for Weighing Air	3 00
1	Barometer Tube, heavy glass	0 50
1	Mariotte's Law Tube	1 50
1	Lift Pump, Glass Model	1 25
1	Force Pump, Glass Model	1 25
1	Hydraulic Press, Glass Model	2 00
1	Filter Funnel	0 10
1	Retort Stand (two rings)	0 50
3	Small Florence Flasks with perforated rubber corks to fit	0 45
1	Florence Flask with wide mouth	0 25
1	Rubber Cork with two holes to fit Florence Flask with large mouth	0 15
1	Hydrometer Jar	0 45
1	Porous Cup	0 70
1	Specific Gravity Bottle	0 75
1	Weighted Wooden Prism, 1 square centimeter in section	0 25
1	Tuning Fork, simple form	0 20
1	Brass Rod for showing the production of Sound by longitudinal vibrations of rod	0 30
1	Whistle	0 10
1	Coil Spring, about 1 in. in diameter and 2 feet long	0 25
1	Bell in Vacuo	1 50
1	Glass Tube, about 2 cm. in diameter and 30 cm. long	0 15

	Probable Cost
1 Glass Tube about 3' cm. in diameter and 50 cm. long	$0 30
1 Whirling Machine	3 50
Cardboard Discs for Whirling Machine to show reflection of sound	0 50
1 Toothed Wheel with ring of holes to attach to Whirling Machine to illustrate pitch of sound	2 00
1 Spool Piano Wire	0 10
1 Toy Trumpet	0 10
1 Ball and Ring	1 00
1 Compound Bar	1 00
1 Thermometer, graduated in both Centigrade and Fahrenheit Degrees	1 00
1 Differential Thermometer	2 50
1 Calorimeter	2 00
1 Conductometer	1 50
1 Cardboard Screen with frame	0 50
1 Reflection of Light Apparatus, to be fitted also for reflection of sound	3 00
1 Plane Mirror (small)	0 25
1 Convex Lens (Reading Glass will answer)	0 50
1 Triangular Glass Prism	0 50
Pieces of Red, Green and Blue Glass	0 10
Lodestone (small piece)	0 50
2 Bar Magnets	0 50
1 Horseshoe Magnet	0 25
1 Compass	0 25
1 Bar Soft Iron, Round, 6 in. long	0 20
Sheet Zinc and Sheet Copper (Pair Elements)	0 15
2 Dry Cells ..... each 35c	0 70
1 Spool Double-Covered Magnet Wire, No. 20, to be used for making Electro-Magnets, etc.	0 30
1 Small Incandescent Lamp (3 volts)	0 25
1 Pneumatic Trough	0 40
4 Glass Bottles (Pickle bottles will answer)	0 10
4 Glass Slips, 2 inches square, to cover mouth of bottles	0 05
3 Soup Plates	0 20
3 Hard Glass Test Tubes	0 30
1 Test Tube Rack	0 25
4 Reagent Bottles, 4 oz.	0 50
½ Doz. Test Tubes, 5 in. x ¾ in. ..... per doz	0 25
1 Doz. Test Tubes, 4 in. x ½ in. ..... per doz	0 15
2 U-Tubes, 6 in. x ¾ in. ..... each	0 10
1 lb. Glass Tubing (soft) ⅛ in. to ¼ in.	0 60
1 Retort, stoppered, 4 oz.	0 25
1 Lamp Chimney (large)	0 10
1 Electrolytic Apparatus	1 25
2 yds. Rubber Tubing 3-16 in. inside, red ..... per ft	0 10
Pieces of Mica	0 10
1 Package of Picture Wire	0 10
2 Files, one round, one triangular ..... each	0 15
2 Doz. Corks, assorted	0 10

		Probable Cost.
1	Package Filtering Paper, Circles, 6 in.	$0 25
	Candles	0 10
½	Doz. Sheets Litmus Paper	0 30
1	Sq. ft. Sheet Rubber ..... per sq. ft.	0 25
	Wire Gauze	0 15
	Sealing Wax ..... large stick	0 25
1	Small Vice for clamping wires	0 40

Chemicals

	Zinc, granulated, 1 lb.	0 20
	Copper clippings (sheet or wire), 1 lb.	0 50
	Iron Filings, 1 lb.	0 05
	Charcoal (may be had from plumber)	0 25
	Coal (pieces of hard and soft)	
	Mercury, 2 lbs.	2 00
	Sodium, 1 oz.	0 25
	Potassium, 2 drams ..... dram	0 25
	Oxide of Mercury, red, 1 oz.	0 25
	Oxide of Copper, 1 oz.	0 15
	Manganese, dioxide, ½ lb.	0 10
	Calcium oxide (Lime, lumps)	
	Sodium, hydroxide, ¼ lb.	0 25
	Potassium chlorate, 1 lb.	0 25
	Potassium nitrate, 4 oz.	0 10
	Potassium permanganate, 2 oz.	0 15
	Calcium chloride (lumps)	
	Ammonia solution, 8 oz.	0 10
	Ammonium nitrate, 4 oz.	0 10
	Ammonium chloride, 6 oz.	0 10
	Calcium carbonate, lumps of limestone, calcite, chalk, animal shells	
	Carbon, specimens of coal, charcoal, graphite, lampblack	
	Sulphuric acid, 1 lb.	0 05
	Nitric acid, 1 lb.	0 05
	Hydrochloric acid, 8 oz.	0 05
	Yellow Phosphorus, 1 oz.	0 05

Botany and Zoology

For the work in Botany and Zoology each pupil should be provided with a pocket magnifier (30-50 cents). A compound microscope ($11.00) should also form part of the school equipment for this work. These, together with a dozen glass slips and cover glasses and a couple of needles mounted in wooden handles, will be found to be all that is necessary, in the way of apparatus, for the course. Breeding cages for observing the development of insects may be made from waste crayon boxes or soap boxes by covering one side or end with mosquito netting or a pane of glass.

The following provisions apply to both the Upper and the Lower School Biology:

Aquaria.

Aquaria of almost any desired form and price may be had from the dealers in school apparatus. Constant attention is necessary to ensure the best conditions in the aquarium, and the instructor should take pains to inform himself on the points requisite for good management.

Skeletons.

While special study of the skeleton is prescribed only in the case of the mammal, it is nevertheless desirable to have at hand the skeletons of other vertebrate forms included in the course. A very satisfactory collection, including the cat, perch, frog, snake, turtle, and crow, is supplied by the dealers at an approximate cost of $35.00. The smaller schools should provide the cat or dog skeleton, and add the others by degrees.

Mounted foot bones of various types, such as pig, horse, sheep, rabbit, dog, and mole, are very useful, and may be purchased at an average price of about $2.00 each. These also could be accumulated by degrees.

Similar remarks apply to the prepared skulls of these types, the average price, however, being somewhat higher.

Preparations Preserved in Fluids.

Preparations illustrating the different stages in the development of the frog, the snake, and the fish can be had at an approximate cost of $5.00 each. They are extremely useful. The smaller schools should be provided with at least the first named.

Admirable preparations of dissected specimens of the fish, frog, crayfish, fresh water mussel, earth-worm, and other types can be had at an average cost of about $5.00 each. The museums in the larger schools at any rate should have examples of these preparations.

Bird Skins and Mounted Birds.

A collection of birds is indispensable in all the schools. There should be specimens of at least twenty representative birds of the locality, selected to show, among other things, the different types of feet and bills. The approximate cost of such a collection would be about $15.00.

Mammals.

The museum in every school should contain stuffed specimens of a few representative wild mammals of the locality. Prices will vary very much according to the size of the specimen.

Insects.

A standard collection of insects, representative of the different orders, should be provided in every school. Such a collection can easily be accumulated by the pupils themselves under the teacher's direction, and special care should be taken to guard it against injury. A fair value will be allowed for deserving collections made in this way.

Cabinets.

For the proper preservation of skeletons, mounted birds, insects, and other dry museum specimens, dust-proof cabinets are essential. These should be constructed partly as glass-fronted cases with shelves, and partly with well fitted drawers which, however, will serve other purposes as well.

Museum Jars.

As already suggested, specimens illustrating the general fauna of the locality should be collected, carefully preserved, and added to the museum. To accommodate the collections preserved in fluid, suitable jars are a necessity. These can be had from the dealers in considerable variety. Those known as "Crown" sealers, in pint and quart sizes, will answer most purposes; but jars with flat sides exhibit the contents to better advantage. Such jars, however, are more expensive.

Botanical Material.

For botanical work, it is highly desirable that the pupils themselves should be encouraged to collect the material needed. A suitable cabinet with drawers is necessary for the herbarium, which should have a place in every school museum. The specimens kept in the herbarium should be carefully selected and mounted, and the whole should form a standard for the guidance of the pupils in this branch of their work.

Standard collections of woods should also be kept on view, and it serves a good purpose to have mounted on large sheets specimens illustrating special points, such as provision for seed-dispersal, varieties of stem-forms, etc.

A collection of woods showing the depredations of destructive insects would be very instructive.

PHYSICS

I. MIDDLE SCHOOL

NOTE:—The pieces marked with an asterisk should form part of the sets for pupils' use in groups of two or four.

Sound

	Probable Limit of Cost. Min.	Max.
1 Brass Rod for showing the production of Sound by longitudinal vibrations of rods	$0 25—	$ 1 30
1 Whistle		10
1 Coil Spring, about 1 inch in diameter and 2 feet long		20
1 Bell in Vacuo	1 80—	2 50
1 Whirling machine		5 00
1 Toothed Wheel with ring of holes to attach to Whirling Machine to illustrate Pitch and Sound	4 00—	5 00
1 Clamp for Vibrating Plates	1 25—	2 50
2 Brass Plates, one square, one circular	1 00—	2 50
1 Sonometer	5 00—	10 00
1 Violin Bow	75—	1 50
1 Tuning Fork-A	20—	25
2 Tuning Forks-C, mounted on Resonance Boxes, each	3 00—	8 00

		Probable Limit of Cost. Min.	Max.
2	Large Concave Mirrors for Reflection of Sound, each	$2 00—	$ 3 00
1	Interference Apparatus		5 00
1	Siren (optional)	5 00—	30 00
	Glass Tubes of various sizes and lengths for showing Vibrations of Air Columns	75—	1 50
1	Organ Pipe with Glass Front		2 50
1	Tambourine to use with the above	25—	50
1	Manometric Flame Apparatus	5 00—	10 00
2	Troughs for showing that waves travel faster in deep than in shallow water	1 50—	3 00
1	Kundt's Tube for finding velocity of sound in a solid (optional)	3 75—	5 00

Heat

1	Ball and Ring	1 00—	1 25
1	Compound Bar	40—	50
*1	Thermometer, graduated in both Centigrade and Fahrenheit Degrees		70
1	Differential Thermometer	1 50—	3 50
*1	Calorimeter	1 50—	2 00
1	Fire Syringe	1 50—	2 00
1	Apparatus for determining the coefficient of linear expansion in a metal	2 25—	5 00
1	Apparatus for testing "Boiling Point" in a Thermometer		1 50
1	Maximum Thermometer	2 00—	6 00
1	Minimum Thermometer	2 00—	5 40
1	Hope's Apparatus for showing Maximum Density of Water	4 00—	4 50
1	Regnault's Apparatus for Finding Coefficient of Expansion of a Gas (optional)	1 50—	7 00
1	Dew Point Instrument	1 50—	2 50
1	Wet-and-Dry Bulb Hygrometer	2 50—	6 00
1	Distillation Apparatus	1 00—	2 00
1	Cryophorus	1 00—	1 50
1	Model of Steam Engine	3 00—	10 00
1	Edser's Apparatus for Finding the Relative Conducting Powers of Metals	2 25—	2 50
1	Model Davy Safety Lamp	2 50—	3 00
1	Apparatus for Showing Principle of Ventilation	1 25—	1 50

Light

*1	Cardboard Screen with Frame		50
*1	Plane Rectangular Glass Tank, to be used also as Pneumatic Trough	2 50—	3 50
*1	Plane Mirror, Mounted in Frame with Supports to Stand Vertically on the Table		3 00
1	Porte Lumiere	10 00—	25 00
	or Projection Lantern	15 00—	200 00
1	Optical Bench and Photometer, complete with Concave and Convex Mirrors and Set of Demonstration Lenses	5 50—	20 00
1	Optical Disc and Refraction Tank		17 50

		Probable Limit of Cost. Min.	Max.
1	Refraction Tank	$	$3 50
1	Rotating Mirror, mounted on stand	2 50—	4 00
*2	60° Glass Prisms	70—	2 00
1	Focussing Lens, large, mounted on stand	3 00—	4 00
1	Colour Wheel for re-composition of Light		1 50
1	Direct Vision Spectroscope	6 00—	25 00
1	Telescope (optional)		5 00

Electricity and Magnetism

*2	Bar Magnets	25—	50
1	Horse Shoe Magnet	10—	20
*1	Compass		20
*1	Bar Soft Iron (round, 6 inches long)	10—	15
*1	Sheet Zinc and Sheet Copper (Pair Elements)		15
*1	Galvanoscope, complete	75—	2 50
4	Dry Cells	25—	30
1	Spool Double Covered Magnet Wire, No. 20, to be used for making Electro-Magnets, etc.		20
4	Small Incandescent Lamps (3 volts), each		40
1	Dipping Needle	3 00—	20 00
*2	Insulating Stands, for suspending pith balls, etc.	25—	1 00
2	Spherical Metallic Condensers on insulation stands		2 50
2	Hollow Hemispherical Condensers with insulating handles to fit over spherical condenser		2 50
1	Cylindrical Metallic Condenser on insulating stand		2 50
*1	Glass Rod and 1 Ebonite Rod, for experiments in electrification.	35—	75
1	Wimshurst Electrical Machine (optional)		25 00
*1	Gold Leaf Electroscope (fitted as a condensing electroscope)	50—	10 00
2	Leyden Jars		3 00
1	Discharger for Leyden Jar		2 00
*	Strips of Zinc, Copper, Carbon, Iron, Lead and Platinum to be used in constructing the various forms of cells	$ 50—	2 00
1	Daniell Cell	50—	75
1	Leclanché Cell	50—	60
*1	Water Voltameter	2 00—	2 75
1	Copper Voltameter	1 50—	4 50
*1	U-Shaped Tube on Stand	1 00—	1 50
2	Coils with Mercury Commutator, for showing Laws of Currents, complete	1 00—	3 50
1	Set of Telegraph Instruments	2 50—	5 00
1	Electric Bell	50—	1 00
1	Astatic Pair of Magnetic Needles	75—	1 75
1	Astatic or D'Arsonval Galvanometer	5 00—	10 00
1	Tangent Galvanometer	3 50—	10 00
1	Ammeter	3 00—	10 00
1	Voltmeter	3 00—	10 00
1	Set of Coils for demonstrating the laws of current induction		3 00
1	Dynamo and Motor, showing parts and connections	12 00—	30 00
1	Arc Lamp, Simple Regulator	3 00—	3 30

	Probable Limit of Cost. Min.	Max.
1 Wheatstone Bridge	$ 5 00—	$25 00
A Meter Sliding Bridge (used instead of the above)	2 50—	15 00
1 Induction Coil	3 00—	25 00
1 Set of Telephone Instruments	4 00—	10 00
1 Set Wireless Telegraphy Instruments (simple form)		15 00
1 X-Ray Tube		5 00

II UPPER SCHOOL

Mechanics and Properties of Matter

Apparatus for determination of average velocity and acceleration	$	$5 00
Apparatus to show relation of force to acceleration	5 00—	10 00
Guinea and Feather Tube	3 00—	5 00
Apparatus to determine acceleration due to gravity	10 00—	20 00
Apparatus for demonstrating parallelogram, triangle and polygon of forces	15 00—	30 00
Apparatus for investigating parallel forces	5 00—	10 00
Apparatus for demonstrating laws of friction	5 00—	10 00
Air Pump and Receiver	10 00—	30 00
Elastic Rubber Balloon. A toy balloon answers well	08—	09
Transmission of Pressure Apparatus		1 75
Apparatus for demonstrating equilibrium of fluids under action of gravity		2 00
Apparatus for determination of whole pressure	5 00—	10 00
Archimedes' Principle	1 45—	1 50
Globe for weighing Air		3 00
Barometer Tube, heavy glass		35
Standard Barometer	15 00—	40 00
Mariotte's Law Tube	75—	2 00
Lift Pump, Glass Model	1 25—	1 50
Force Pump, Glass Model	1 25—	1 50
Hydraulic Press, Glass Model		1 50

Surface Tension and Flow of Fluids

Capillary tubes, set of	30—	1 00
Small and large tube connected		1 25
Glass cell and "pill-box" pulley		2 00
Surface tension wires, each		25
Separating funnel		1 50
Two-compartment cell, for projection		3 00
Apparatus for vertical jet (Torricelli's)		3 00
Tube of varying size with pressure tubes		1 50
Atomizer		50
Jet pump, glass model		50
Bunsen jet pump		1 00
Hollow glass bulbs, set of 4		25

GYMNASIUMS

Apparatus

For Boys

OBLIGATORY.—Two Horizontal Bars—one at least to be adjustable to different heights. Pair of Adjustable Parallel Bars. Travelling Rings—at least six. Horizontal Ladder. Flying Rings—one pair. Incline Board. Jump Board. Balance Beam. Gymnasium Scale. Wooden Dumb Bells. Indian Clubs. Wands. Rifles or Wooden Rifles. Medicine Ball—6 or 8 lbs. Mattresses—thickness, 2 inches—two, four feet by ten feet; two, four feet by four feet. Horse. Climbing Rope. Basket Ball, Indoor Base Ball, Volley Ball.

OPTIONAL.—Chest-weight Machines. Suspended Parallel Bars. Wall Machine. Quarter Circle. Vaulting Buck. Wall Horizontal Bar. Striking Bag. Vaulting Standard. Folding Hurdle. Vaulting Poles.

For Girls

OBLIGATORY.—Wands. Indian Clubs. Wooden Dumb Bells. Chest Weight Machines. Basket Ball. Volley Ball. Indoor Base Ball. Horizontal Ladder.

OPTIONAL.—Parallel Bars. Travelling Rings. Flying Rings. Quarter Circle.

Books of Reference

Syllabus of Physical Exercises for Public Schools. Copp, Clark Co.	$ 25
Physical Training, including First Aid. Jas. W. Barton, M.D., Physical Director, University of Toronto. Musson Book Co., Toronto	75
Games for Playgrounds, Class-room, Home and Gymnasium. James H. Bancroft. Macmillan Co., Toronto	1 50
At Home in the Water. Geo. H. Corsan. Association Men Press, New York	75
Handbook of Rhythmical Balance Exercises. Grannis Press, New York	1 50

ART ROOMS

Models

Adequate provision of type objects, models of common objects, ceramics, and pictures is indispensable.

The following lists are given for guidance:

1. Type objects made of wood and painted white.

One each of
- Sphere, 12 inches diameter.
- Cylinder, 8 x 12 inches.
- Cone, 8 x 12 inches.

Six each of
- Square Prism, 8 x 12 inches.
- Square Pyramid, 8 x 12 inches.
- Cube, 8 inches face.
- Hexagonal Prism, 8 x 12 inches.
- Circular Plinth, 8 x 2 inches.
- Square Plinth, 8 x 2 inches.

2. One skeleton form of a cube 2 ft. and a square pyramid, 2 ft. base and 2 ft. high.

3. Ceramics: Pots, kettles, drinking-glasses, pitchers, cups, vases, candlesticks, jardinieres, etc.

NOTE.—The ceramics should be chosen, not only for their individual beauty, but for their form value in grouping and their colour value in a general scheme of colour harmony.

4. Unique objects, suitable for decorative purposes; Chinese lanterns and parasols, objects of Indian manufacture, etc.

5. Plaster casts: Plaques, busts, figures, groups of figures, and historic ornament. Casts are optional in the Lower School, but are desirable for both decorative and instructional purposes.

NOTES: 1.—Carbon reproductions, etchings, and engravings of famous buildings, landscapes, and figures should also be provided, to exemplify the laws of composition and to give the pupils some knowledge of the work of the great artists. These should be provided primarily as school decorations; they are not to be classed as Art Models.

2.—*For lists of suitable pictures, reproductions, and casts, see Educational Pamphlet,* No. 5: LIST OF REPRODUCTIONS OF WORKS OF ART.

3.—In schools unable to purchase an adequate supply of the more expensive pictures, the cheap reproductions may be used to supplement. When, also, schools become acquainted with the masterpieces in this economical way, they will be better able to decide which of the more expensive reproductions to purchase.

4.—Under the tariff, maps, photographic reproductions, casts, etchings, and lithographic prints or charts are specified as free, when specially imported in good faith by order of any College, Academy, School, or Seminary of learning in Canada, for use to demonstrate or to instruct students and not for sale.

Working Equipment

1. Teachers' Easel and Drawing Board.
2. Drawing Boards for Pupils (three-ply, 13 inches x 17 inches).
3. Stands for models.
4. A water bottle for each pupil (4 oz. wide-mouthed pomade bottle).

Reference Books

A Guide to Pictures, by Charles H. Caffin $1.25
Doubleday, Page & Co., New York.

How to Enjoy Pictures, by M. S. Emery 1.50
The Prang Educational Co., New York.

Illustrated Exercises in Design, by E. G. Branch 1.50
The Prang Educational Co., New York.

Freehand Perspective and Sketching, by D. M. Norton 2.00
D. M. Norton, Pratt Institute, New York.

Pencil Sketching, by G. W. Koch 1.50
The Prang Educational Co., New York.

Art Education for High Schools 1.25
The Prang Educational Co., New York.

Apollo, The History of Art throughout the Ages, by S. Reinach 1.50
Charles Scribner's Sons, New York.

The School Arts Magazine, edited by H. T. Bailey, per year 2.25
The School Arts Publishing Co., Boston.

Appendices
Topics and Sub-Topics of Courses of Study

APPENDIX A

CALISTHENICS, ATHLETICS, AND GYMNASTICS

The following are the topics and sub-topics of a recommended course in Calisthenics, Athletics, and Gymnastics.

I LOWER SCHOOL

Boys

Calisthenics: Dumb Bells; Wands; Land Drill, Swimming.

Apparatus: Horse—Vaults; Mats—Jump, Hops, etc., Front and Back Rolls; Vaulting Bar—Vaults, same as Horse; Buck—Vaults, same as on Horse and Vaulting Bar; Hanging Exercises on Suspended Ladders or Suspended Parallels.

Indoor Games: Basket Ball; Indoor Baseball; Volley Ball; Athletic Dances and Drills.

Outdoor Athletics: Running, Jumping, etc.

Girls

Calisthenics: Dumb Bells; Wands; Clubs; Land Drill; Swimming.

Apparatus: Mat Exercises; Hanging Exercises on Ladder or Suspended Parallels.

Steps: Basic Fancy Steps; Rhythmical Balance Exercises.

Gymnasium Games: Basket Ball; Volley Ball; Varied Games, as Follow the Leader, Hang Tag, etc.

II MIDDLE AND UPPER SCHOOL

Boys

Calisthenics: Dumb Bells; Wands; Land Drill; Swimming; Life-saving methods.

Apparatus: Horse—Vaults; Feints; Circles—Combinations; Mats—Rolls, Dives, Handstands, etc.; Parallel Bars—Rests, Sets, Walks, Vaults, Spreads; Horizontal Bar—Grasps, Rests, Circles, Underswings; Rings—Hangs, etc.

Indoor Games: Basket Ball; Indoor Baseball; Volley Ball; Athletic Dances and Drills.

Outdoor Athletic Games: Lacrosse; Soccer; Rugby; Hockey; Basket Ball.

Single Stick Exercises.

Girls

Calisthenics: Dumb Bells; Wands; Land Drill; Swimming; Life-saving methods.

Apparatus: Horse—Vaults and Seats; Mats—Hops, Jumps, etc.; Vaulting Bar—Runs under, underswings; Buck—Vaults, Rests, Seats; Rings—Hangs.

Folk Dances and Figure Marching.

Indoor Games: Basket Ball; Indoor Baseball; Volley Ball.

NOTE.—The courses for teachers' certificates in Physical Culture now include swimming, and where local facilities are available provision should be made for instruction in the subject.

APPENDIX B

BRITISH AND CANADIAN HISTORY

I LOWER SCHOOL

The following are the topics and sub-topics of the courses in British and Canadian History for the Lower School:

Canadian History

The Indians: the chief tribes.

Early discoveries: the Cabots, Cartier.

The career of Champlain, 1603-35, chief events.

The Jesuit Missions.

The Heroes of the Long Sault.

Establishment of Royal Government under Laval, Courcelle, Talon.

Chief events in the career of Frontenac in Canada.

Explorations: Founding of the Hudson's Bay Co.; Radisson; Marquette and Joliet; La Salle; Vérendrye and his sons.

Social Conditions during the French Period, as outlined, for example, in the Public School History of Canada.

The Seven Years' War: Preparations, chief events, results, Wolfe and Montcalm.

Establishment of British Rule: Military Government, Establishment of Civil Government (the terms of the Proclamation not required).

The Quebec Act: reasons for passing the Act, terms.

The American Revolutionary War: Causes, Attack on Canada, Independence of the United States. Attitude of French Canadians.

The United Empire Loyalists.

The Constitutional Act: reasons for passing the Act, terms.

Simcoe, First Provincial Parliaments at Newark and York.

The English Fur Companies, 1783-1861 (very briefly), rivalry in trade, founding of the Selkirk Settlement, attempts to destroy the Settlement, Union of the Companies, results of Simpson's administration.

Explorations: Hearne, Mackenzie, and Fraser.

War of 1812-14.

The struggle for Responsible Government (very briefly). The object is simply to make plain the meaning of the term "Responsible Government," the causes of the struggle, the demands of the Reformers, and the characters and views of such men as Bishop Strachan, Sir Francis Bond-Head, Hon. Chief Justice Robinson, MacKenzie, Papineau, and Joseph Howe.

Rebellion of 1837.

Report of Lord Durham and the Union Act.

The Triumph of Responsible Government, 1841-49 (Very briefly); Baldwin, Lafontaine, Elgin.

Municipal Corporation Act; Reciprocity Treaty; Abolition of Seigniorial Tenure; Secularization of the Clergy Reserves.

Confederation: causes, Charlottetown and Quebec Conferences, Fathers of Confederation, Terms of the British North America Act.

The Purchase of Rupert's Land; the Red River Rebellion.

The Addition or Creation of New Provinces, 1870-1905.

The work of Ryerson.

The building of the Intercolonial and Canadian Pacific Railway (very briefly).

The Saskatchewan Rebellion (in very brief outline).

The administrations of Sir John Macdonald and Alexander Mackenzie.

The Rush-Bagot Treaty, the Washington Treaty, and very briefly the chief boundary disputes between Canada and the United States.

Names of Premiers of the Dominion of Canada and of Ontario.

Growing unity of the British Empire as shown by the Colonial and Imperial Conferences, Imperial Penny Postage, Canada's participation in the Boer War, etc.

Government in Canada: Dominion, Provincial, Municipal.

Social and industrial conditions under British Rule.

The great events of current history.

British History

The Early Britons.

The Roman Occupation.

The Saxon Period: Saxon Conquest, England Christianized, Caedmon, Bede, Alfred, Danish invasions, the unification of England, Saxon government and customs.

The Normans, 1066-1154.

William the Conqueror: Government, Feudal System.

William Rufus, Henry I, Stephen: These sovereigns are to be treated as mere connecting links.

The Angevins or Plantagenets, 1154-1399.

Henry II: Possessions, reforms, trouble with Becket (very briefly), conquest of Ireland.

Richard I: as King, as Crusader; effects of the Crusades.

John: Struggle with the Church; Struggle with the Barons; Magna Charta: principal terms.

Henry III: Revolt of Simon de Montfort.

Edward I
" II
" III
Richard II

Model Parliament, conquest of Wales, attempt to conquer Scotland, Hundred Years' War, Peasants' Revolt, Wycliffe, Chaucer.

The Houses of Lancaster and York, 1399-1485.

Henry IV
" V
" VI
Edward IV
Richard III

Growth and decline of power of Parliament, Hundred Years' War, Wars of the Roses (causes and results only).

Very brief review of social, industrial and religious conditions of the Middle Ages as outlined, for example, in the Public School History of England: Language p. 50; Literature p. 47-8, 60, 78-9, 108; Printing p. 108; Crusades p. 42-3; Chivalry p. 62-4; Guilds p. 94; Conditions under which people lived p. 93-4; Monks and Friars p. 72; Lollards p. 91, 98; Commerce and Exploration p. 116.

The Tudors, 1485-1603.

Henry VII: Establishment of the absolute power of the King.
Henry VIII: Renaissance, Wolsey, separation between the English Church and Rome.
Edward VI: Growth and influence of Protestantism in the English Church.
Mary I: Authority of the Pope restored.
Elizabeth: The English Church under the headship of the Sovereign fully established; danger of attack from France, Spain, and Scotland; Mary Stuart; English Seamen; the Armada; Parliament begins to assert itself; material and social progress (very briefly); literature (very briefly).

The Stuarts, 1603-1714.

James I: Union of English and Scottish thrones; Theory of Divine Right; trouble with Parliament; war with Spain; Founding of first American Colonies.
Charles I: Trouble with Parliament; Absolute rule by the help of Strafford and Laud; Petition of Right; Long Parliament; civil wars; execution of Charles.
The Commonwealth: Conquest of Ireland and Scotland; Cromwell as Lord Protector; Recall of the Stuarts.
Charles II: Persecution of Dissenters; intrigues with Louis XIV and war with Holland; Declaration of Indulgence; Test Act; Habeas Corpus Act.
James II: Arbitrary rule; Revolution of 1688.
William III, Mary II: Bill of Rights; Beginning of Party Government; War in Scotland, in Ireland, with France; Act of Settlement.
Anne: Union of England and Scotland; War of Spanish Succession; social progress and customs; chief writers of the Stuart period.

The Hanoverians, 1714 to the present.

George I: Increase of the power of the Cabinet; Walpole; Stuart Rising 1715.
George II: War of the Austrian Succession; Stuart Rising in 1745; The Methodist Movement; Seven Years' War: causes, chief events, results.
George III: Treaty of Paris; John Wilkes; American Revolution; Grattan's Parliament: the Younger Pitt; British Rule in India: prison reform; Progress in industry; struggle with Napoleon; Union of Great Britain and Ireland; literature (very briefly).
George IV
William IV — Social unrest; Reforms: Catholic Relief Bill, Reform Bill of 1832, Abolition of Slavery, Factory Act of 1833, Poor Law Amendment, 1834; Railways.
Victoria: Penny Postage; Chartist Agitation: Repeal of the Corn Laws; Crimean War; Indian Mutiny; Reform Bills of 1867 and 1884; occupation of Egypt; Boer War; great Parliamentary leaders, such as Peel, Palmerston, Disraeli, Gladstone; Irish reforms and Home Rule; material and social progress; literature.
Edward VII: Relations with foreign powers; growth and government of the British Empire; the Imperial Parliament.
The great events of current history.

II. UPPER SCHOOL

HISTORY

The following are the topics and sub-topics of the course in History:

First Course

Outlines of Mediaeval History from the Barbarian Invasions to the Discovery of America:

The Roman Empire: Its extent and mode of Government; the causes of its decline.

The Rise of Christianity within the Empire: its relations with the government.

The Barbarian Invasions: the chief tribes and their migrations; the most conspicuous names (Attila, Alaric, Odoacer, Clovis, Theodoric) and dates; the results.

The growth of the Church: the Bishop of Rome; his position in the church and in Italy; his relation to the Empire and to foreign powers; the work of Gregory the Great; the rise of monasticism; the rule of St. Benedict; the conversion of the Germans.

The Empire of Charles the Great: its rise and extent; his methods of administration; his interests in education and building; his religious and political aims; causes of disruption of his empire.

The growth of Feudalism: its origin; a typical feudal estate and the relations of its members to one another; causes of its decay.

The rise of Royal power in France; the expansion of the Norman race; Philip Augustus; St. Louis.

The German Kings and the Empire; Henry III, Henry IV; Frederick Barbarossa, Frederick II; struggles with the Popes; causes of the decay of the Empire.

The position of the church in Mediaeval Society and political life; its organization; the investiture struggle; the jurisdiction of its courts; the monks and the friars; Gregory VII; Innocent III.

The Crusades: causes leading to them; events of the first crusade; effects of the crusades on Europe.

Social life in the Middle ages: daily life on a feudal estate; rise of the towns; commerce of the Italian cities and the Hanseatic League; rise of the Universities, state of learning and means of education.

Study in Greater Detail of the Period from the Discovery of America to the Death of Elizabeth. 1492-1603.

The Renaissance.

Voyages of discovery and exploration.

Europe at the beginning of the 16th century; conditions in England, Germany, Spain, the Netherlands, previous to the Reformation.

The growth of the royal power and the rise of the modern nations.

The Protestant Revolt; the Catholic Reformation; Charles V and Philip II; France during the religious struggles; the Revolt of the Netherlands.

The Elizabethan Period in literature. (See Green, Short History of the English People, Chap. VII., s. 7.)

Second Course

Outlines of Modern History from the Death of Elizabeth to the Treaty of Paris. 1603-1763:

The Thirty Years' War: its causes; the position of Austria and of France; the career of Gustavus Adolphus; the peace of Westphalia; effects of the war.

The struggle for the supremacy of Parliament in England. France under Louis XIV. The rise of Russia and Prussia. The Seven Years' War, 1756-1763.

Study of Modern History in Greater Detail from the Treaty of Paris to 1885:

The American Revolution.

The French Revolution; its causes, main events and leading figures.

The rise of Napoleon; the Napoleonic Empire; the uprising of the nations against Napoleon.

Europe in 1815; the period of repression under Metternich.

The growth of the democratic spirit in government, as illustrated by the revolutions of 1830 and 1848.

The unification of Italy and of Germany.

The Industrial Revolution; modern inventions; world commerce.

Modern colonial expansion and emigration; the growth of the British Empire.

The Eastern question (Turkey in Europe); the Congress of Berlin and the balance of power in Europe.

APPENDIX C

GEOMETRY

Following are the topics of the courses in Geometry:

I—Lower School

A—Constructions

To construct a triangle with sides of given lengths.
To construct an angle equal to a given rectilineal angle.
To bisect a given angle.
To bisect a given straight line.
To draw a line perpendicular to a given line from a given point in it.
To draw a line perpendicular to a given line from a given point not in the line.
To find the locus of a point equidistant from two given lines.
To find the locus of a point equidistant from two given points.
To draw a line parallel to another, through a given point.
To divide a given line into any number of equal parts.

B.—Theorems

The sum of the angles of any triangle is equal to two right angles.
The angles at the base of an isosceles triangle are equal, with converse.
If the three sides of one triangle be equal, respectively, to the three sides of another, the triangles are equal in all respects.
If two sides and the included angle of one triangle be equal to two sides and the included angle of another triangle, the triangles are equal in all respects.
If two angles and one side of a triangle be equal to two angles and the corresponding side of another, the triangles are equal in all respects.
If two sides and an angle opposite one of these sides be equal, respectively, in two triangles, the angles opposite the other pair of equal sides are either equal or supplemental.
The sum of the exterior angles of a polygon is four right angles.
The greater side of any triangle has the greater angle opposite it.
The greater angle of any triangle has the greater side opposite it.
If two sides of one triangle be equal, respectively, to two sides of another, that with the greater contained angle has the greater base, with converse.
If a transversal fall on two parallel lines, prove the relations between the angles formed, with converses.
Lines which join equal and parallel lines towards the same parts are themselves equal and parallel.
The opposite sides and angles of a parallelogram are equal and the diagonal bisects it.

II—Middle School

A—Constructions

To describe a parallelogram equal to a given triangle, and having an angle equal to a given angle.

To describe a parallelogram equal to a given rectilineal figure, and having an angle equal to a given angle.

On a given straight line to describe a parallelogram equal to a given triangle, and having an angle equal to a given angle.

To find the centre of a given circle.

From a given point to draw a tangent to a given circle.

On a given straight line to construct a segment of a circle containing an angle equal to a given angle.

From a given circle to cut off a segment containing an angle equal to a given angle.

In a circle to inscribe a triangle equiangular to a given triangle.

To find locus of centres of circles touching two given straight lines.

To inscribe a circle in a given triangle.

To describe a circle touching three given straight lines.

To describe a circle about a given triangle.

About a given circle to describe a triangle equiangular to a given triangle.

To divide a given line similarly to another given divided line.

To find the fourth proportional to three given lines.

To describe a polygon similar to a given polygon, and with the corresponding sides in a given ratio.

To find the mean proportional between two given straight lines.

To construct a polygon similar to a given polygon, and such that their areas are in a given ratio.

To describe a polygon of given shape and size.

B—Theorems

Parallelograms on the same base, or on equal bases, and between the same parallels, are equal.

Triangles on the same base, or on equal bases, and between the same parallels are equal.

Triangles equal in area, and on the same base, are between the same parallels.

If a parallelogram and a triangle be on the same base, and between the same parallels, the parallelogram is double the triangle.

Find expressions for area of a parallelogram, and area of a triangle.

The complements of the parallelograms about the diagonal of any parallelogram are equal.

The square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the sides.

If a straight line be divided into any two parts, the sum of the squares on the parts, together with twice the rectangle contained by the parts, is equal to the square on the whole line.

The square on a side of any triangle is equal to the sum of the squares on the two other sides + twice the rectangle contained by either of these sides and the projection of the other side on it.

If more than two equal straight lines can be drawn from the circumference of a circle to a point within it, that point is the centre.

The diameter is the greatest chord in a circle, and a chord nearer the centre is greater than one more remote. Also the greater chord is nearer the centre than the less.

The angle at the centre of a circle is double the angle at the circumference on the same arc.

The angles in the same segment of a circle are equal, with converse.

The opposite angles of a quadrilateral inscribed in a circle are together equal to two right angles, with converse.

The angle in a semicircle is a right angle; in a segment greater than a semicircle less than a right angle; in a segment less than a semicircle greater than a right angle.

A tangent is perpendicular to the radius at the point of contact; only one tangent can be drawn at a given point; the perpendicular to the tangent at the point of contact passes through the centre; the perpendicular from centre on tangent passes through the point of contact.

If two circles touch, the line joining the centres passes through the point of contact.

The angles which a chord drawn from the point of contact makes with the tangent, are equal to the angles in the alternate segments.

The rectangles under the segments of intersecting chords are equal.

If OA. OB=OC^2, OC is a tangent to the circle through A, B, and C.

Triangles of the same altitude are as their bases.

A line parallel to the base of a triangle divides the sides proportionally, with converse.

If the vertical angle of a triangle be bisected, the bisector divides the base into segments that are as the sides, with converse.

The analogous proposition when the exterior angle at the vertex is bisected, with converse.

If two triangles are equiangular, the sides are proportional.

If the sides of two triangles are proportional, the triangles are equiangular.

If the sides of two triangles about equal angles are proportional, the triangles are equiangular.

If two triangles have an angle in each equal, and the sides about two other angles proportional, the remaining angles are equal or supplemental.

Similar triangles are as the squares on corresponding sides.

The perpendicular from the right-angle of a right-angled triangle on the hypotenuse divides the triangle into two which are similar to the original triangle.

In equal circles angles, whether at the centres or circumferences, are proportional to the arcs on which they stand.

The areas of two similar polygons are as the squares on corresponding sides.

If three lines be proportional, the first is to the third as the figure on the first is to the similar figure on the second.

Questions and easy deductions on the preceding constructions and theorems.

Note.—In the formal deductive geometry modifications of Euclid's treatment of the subject will be allowed, though not required, as follows:—

The employment of the "hypothetical construction."

The free employment of the method of superposition, including the rotation of figures about an axis, or about a point in a plane.

A modification of Euclid's parallel postulate.

A treatment of ratio and proportion restricted to the case in which the compared magnitudes are commensurable.

III—Upper School

A

Exercises on the course prescribed for the Middle School, with special reference to the following topics—loci; maxima and minima; the system of inscribed, escribed and circumscribed circles of a triangle with metrical relations; radical axis.

B—Synthetic Geometry

The following additional propositions in Synthetic Geometry, with exercises thereon:—

To divide a given straight line internally and externally in medial section.

To describe a square that shall be equal to a given rectilineal figure.

To describe an isosceles triangle having each of the angles at the base double of the third angle.

To inscribe a regular pentagon in a given circle.

The squares on two sides of a triangle are together equal to twice the square on half the third side and twice the square on the median to that side.

If A B C be a triangle, and A be joined to a point P of the base such that B P : P C = m : n, then n A B^2 + m A C^2 = (m + n) A P^2 + n B P^2 + m P C^2.

In a right-angled triangle the rectilineal figure described on the hypotenuse is equal to the sum of the similar and similarly described figures on the two other sides.

If the vertical angle of a triangle be bisected by a straight line which also cuts the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base, together with the square on the straight line which bisects the angle.

If from the vertical angle of a triangle a straight line be drawn perpendicular to the base, the rectangle contained by the sides of the triangle is equal to the rectangle contained by the perpendicular and the diameter of the circle described about the triangle.

The rectangle contained by the diagonals of a quadrilateral inscribed in a circle is equal to the sum of the two rectangles contained by its opposite sides.

Two similar polygons may be so placed that the lines joining corresponding points are concurrent.

If a straight line meet the sides B C, C A, A B, of a triangle A B C in D, E, F respectively, then B D. C E. A F = D C. E A. F B, and conversely. (Menelaus' Theorem.)

If straight lines through the angular points A, B, C of a triangle are concurrent, and intersect the opposite sides in D, E, F respectively, then B D. C E. A F=D C. E A. F B, and conversely. (Ceva's Theorem.)

If a point A lie on the polar of a point B with respect to a circle, then B lies on polar of A.

Any straight line which passes through a fixed point is cut harmonically by the point, any circle, and the polar of the point with respect to the circle.

In a complete quadrilateral each diagonal is divided harmonically by the other two diagonals, and the angular points through which it passes.

C—Elementary Analytical Geometry.

Axes of co-ordinates. Position of a point in plane of reference.

Transformation of co-ordinates,—origin changed, or axes (rectangular) turned through a given angle.

$$\pm 2A = x_1(y_2 - y_3) + \ldots . + \ldots .$$

Co-ordinates of point dividing line joining $P_1(x_1,\ y_1)$ and $P_2(x_2\ y_2)$, in ratio $m : n$ are

$$x = \frac{mx_2 + nx_1}{m+n},\quad y = \frac{my_2 + ny_1}{m+n}.$$

$$(P_1P_2)^2 = (x_1 - x_2)^2 + (y_1 - y_2)^2$$

Equations of straight lines.

$$\left.\begin{aligned} \frac{x - x_1}{x_1 - x_2} &= \frac{y - y_1}{y_1 - y_2}. \\ \frac{x}{a} + \frac{y}{b} &= 1. \end{aligned}\right\} \text{Line defined by two points through which it passes.}$$

$$\left.\begin{aligned} \frac{x-a}{\cos\theta} &= \frac{y-b}{\sin\theta} = r. \\ y &= mx + b. \\ y &= m(x-a). \\ x\cos\alpha + y\sin\alpha &= p. \end{aligned}\right\} \text{Line defined by one point through which it passes and by its direction.}$$

General equation of 1st degree, $Ax + By + C = 0$, represents a straight line.

Any line through $(x_1,\ y_1)$ is

$$A(x - x_1) + B(y - y_1) = 0.$$

If θ be angle between $Ax + By + C = 0$ and $A'x + B'y + C' = 0$, then

$$\tan\theta = \frac{A'B - AB'}{AA' + BB'}.$$

Condition of $\perp$ rity, $AA' + BB' = 0$.

Condition of $\parallel$ ism, $\frac{A}{A'} = \frac{B}{B'}$.

Distance from $(a,\ b)$ to $Ax + By + C = 0$, in direction whose direction cosines are $(l,\ m)$, is

$$-\frac{Aa + Bb + C}{Al + Bm}.$$

$\perp r$ distance from $(a,\ b)$ on $Ax + By + C = 0$,

$$\pm\frac{Aa + Bb + C}{\sqrt{A^2 + B^2}}.$$

THE CIRCLE—

Equations in forms :

$$x^2 + y^2 = r^2.$$

$$(x - a)^2 + (y - b)^2 = r^2.$$

$$y^2 = 2rx - x^2.$$

General equation $x^2 + y^2 + 2Ax + 2By + C = 0$

or $(x + A)^2 + (y + B)^2 = A^2 + B^2 - C$

represents a circle with centre $(-A, -B)$ and radius $\sqrt{A^2 + B^2 - C}$.

Tangent at (x', y') to $x^2 + y^2 = r^2$ is $xx' + yy' = r^2$.

Normal is $\frac{x}{x'} = \frac{y}{y'}$.

Tangent in form $y = mx \pm r\sqrt{1 + m^2}$.

Pole being (x', y'), polar is $xx' + yy' = r^2$.

If pole move along a line, polar turns about pole of that line.

Square of tangent from (x', y') to $x^2 + y^2 + 2Ax + 2By + C = 0$

is $x'^2 + y'^2 + 2Ax' + 2By' + C$.

Radical axis of $x^2 + y^2 + 2Ax + 2By + C = 0$,

$x^2 + y^2 + 2A'x + 2B'y + C' = 0$.

Easy exercises on the preceding propositions.

APPENDIX D

ELEMENTARY SCIENCE

Zoology

The General Scope of the Work in Zoology is as follows:

Indoor Study of Living Animals: The teacher's immediate responsibility lies in the laboratory work which embodies simple morphological studies of common forms, representing the chief animal types. These studies must, wherever possible, be supplemented or preceded by observation on living specimens. For this purpose, provision will be needed for suitable aquaria and vivaria, where the moving, breathing, and feeding of the living animals may be within ready view of the pupils. Moreover, these morphological studies are not to end in the study of form; behind the observation of the form there must be a constant effort to interpret the meaning of the form, to show the relation of form and function.

Charts and models are not to be substituted for actual specimens.

Outdoor work, which will of necessity vary with the locality, must be carried on to a very large extent without the teacher's direct supervision. But the teacher should encourage and direct the pupils, devoting a fair portion of the time of the class to discussions and reports on their independent work. Arrangements should be made for field excursions on suitable occasions.

School Museum: For progress in the natural history side of the subject, the equipment detailed on pp. 63-65 should be provided. The school museum should be a thing of gradual growth, and great care should be taken in the selection of the material.

FIRST YEAR

September and October

Invertebrates.—Class study of a grasshopper, a spider, a centipede.

Comparison of a grasshopper with a cricket or cockroach, leading to the recognition of the order Orthoptera.

Study of a butterfly and a house-fly with observations on their habits and habitats; feeding and development of a butterfly.

Vertebrates.—Birds: Study of the external characteristics of a domestic fowl, pigeon or other common bird; instructions regarding the protection of birds by law. Comparison of the bills and feet of different types of the birds of Ontario.

For Winter: Observation of the Winter birds, their feeding habits, their dangers and modes of protection.

April, May and June

Invertebrates.—Class study of the fresh water clam and the earth-worm.

Observations on the mosquito, the prevalence of its larvae in wet places and their destruction by kerosene.

Vertebrates.—Fishes: Study of the external characteristics of a common fish. Structure of the gills and the manner of breathing.

Amphibians: Study of the external characters of a common frog; of its development from the egg. Economic importance of frogs and toads. Feeding habits of a common fish, frog, or toad.

Migration of birds. Identification of twelve common birds; sufficient description for this purpose to be recorded.

A collection of insects to be made in the first year.

SECOND YEAR

September and October

Invertebrates.—Study of the life-history, habits, and methods of feeding of six beneficial or injurious insects (some of each); methods of combating the attacks of the injurious forms.

Vertebrates.—Mammals: study of the external characteristics of a cat, dog, or rabbit; chief characters of the skeleton of a mammal, such as a cat. Recognition of the common wild mammals of the locality, and observations on their habits, including Winter habits.

April, May, and June

Invertebrates: Class study of the external characters of a crayfish and a wood louse (Oniscus).

Vertebrates.—Reptiles: Study of the external characters of a snake and a turtle, and observations on the habits and feeding of these animals.

Continuation of the observations on the life and habits of birds and other animals studied.

General review of the whole course including an outline of classification as shown by the animals studied.

Botany

Remarks similar to those introducing the course in Zoology will apply also to the work in Botany. In particular, it is urged upon the instructor that he should constantly stimulate the effort to interpret the meaning of the forms under observation—to discover where possible the relation between form and function.

FIRST YEAR

September and October

The Plant as a whole: A detailed study of some common plant such as a petunia or a buttercup, taking up the structure of all the parts in succession; the study of additional plants as a basis for the classification of roots, stems, foliage-leaves and inflorescence; the study to be such as can be carried on with the aid of an ordinary lens.

Roots: Varieties of form. *Stems*: Varieties of form; erect, prostrate, climbing, twining, subterranean, aquatic. Stem-structure in dicotyledons and monocotyledons. *Foliage-leaves*: General structure, veining, margin, form and arrangement in relation to sunlight and shedding of rain. *Inflorescence*: Varieties of axial and terminal types.

Fruits: Structure and classification of the simpler fruits such as a pea or bean, shepherd's purse, poppy, apple, tomato, grape, plum, corn and maple; adaptation for the dispersal of seeds.

Preparation for Winter: Storage of reserve food in root, stem, leaf and seed; study of winter buds, their arrangement, structure and means of protection; the fall of the leaf and fruit; interpretation of leaf and scale scars on trees and shrubs.

April, May, and June

Seeds: Practical study of some of the common seeds such as the pea, bean, morning glory, representing dicotyledons; corn, wheat, representing monocotyledons; pine or spruce, representing gymnosperms; form, markings, parts and their functions, position of stored food.

Germination of seeds: Simple experiments to illustrate the more important phenomena and requirements of germination and growth, e.g., need of air, warmth and moisture; evolution of carbon dioxide; how and to what extent water is absorbed; root-hairs; root-cap; region of growth in root.

Spring Flowering Plants: Plant description and identification by means of a flora begun; relation of flower-structure to mode of pollination; meaning and significance of cross-pollination; structure and expanding of winter buds; adaptation of stem-form to habit; spines, prickles, tendrils, their forms and uses; foliage-leaves, as in the autumn work of the first year.

SECOND YEAR

September and October

Composites: Study of the inflorescence and flower-structure of typical composites, such as dandelion, burdock and ox-eye daisy.

Weeds: Recognition of common forms; how they spread, and how they may be controlled.

Fungi: Recognition and mode of life of mushroom, puff-ball, polypore as saprophytic forms; and apple scab, lilac mildew, wheat rust, black knot or other common type, as a parasitic form.

Physiological Experiments: *Roots*: Simple experiments to illustrate root functions, e.g., absorption by osmosis, growth towards moisture. *Soils*: The presence of soluble and insoluble materials in soils; simple experiments in illustration. *Stems*: Simple experiments to illustrate stem-function, e.g., conduction of cell-sap, heliotropism, rotation of the end of the stem in twiners and climbers. *Foliage-leaves*: Simple experiments to illustrate leaf-functions, e.g., transpiration, manufacture of starch in sunlight, disappearance of starch in darkness, exhalation of a gas by green water plants, exhalation of carbon dioxide.

April, May, and June

Trees: Mode of branching and identification by leaves, bark and wood of Maple, Willow or Oak, a Conifer, Apple, and Plum or Cherry.

Description and identification of twelve different species of flowering plants, representing at least six different orders and including both monocotyledons and dicotyledons.

Ferns: General structure and habits of a common fern.

Review: General review and comparison of the characteristics of the larger groups of plants taken up in the course, summarizing and classifying.

A collection of plants to be made in the second year; also a collection of ten economic woods.

The collection of plants shall include carefully selected and prepared specimens of the species chosen for identification as required above.

Physics

FIRST YEAR

November to April

Introductory: Measurement in Metrical and English units of length, area, volume, and mass; structure and use of the Balance; The Three States of Matter, defined and explained.

Mechanics: The principle of the mechanical powers; some of their more important simple applications.

Hydrostatics: Pascal's Law, statement and verification, some of its more important applications; pressure of liquids in its relation to direction, depth, density of liquid, area pressed, and the shape of containing vessel; Archimedes' principle; specific gravity; common methods of finding specific gravities of solids and liquids.

Pneumatics: Study of the properties of a gas as exhibited in air as a type; proof that air has weight, occupies space, and exerts pressure; construction of the barometer; the relation between the volume and pressure of a gas; proof of Boyle's Law; practical application of air pressure; air-pump, common pump, siphon, the principle of air-brakes, air-tools.

SECOND YEAR

November to April

Heat: Nature and source of heat; experiments to illustrate the expansion of solids, liquids, and gases by heat; some practical applications of the principle of expansion; the anomalous expansion of water, its significance; meaning of temperature as compared with quantity of heat; graduation of the mercury thermometer in the Centigrade and the Fahrenheit scale; meaning of latent heat, applications; experimental demonstration of the transmutation of heat into mechanical energy.

Sound: Nature and propagation of sound; pitch of sound; consonance and resonance; reflection of sound echoes.

Light: Nature and propagation of light; simple experiments illustrating the reflection and refraction of light; dispersion of light; colour of bodies.

Magnetism and Electricity: Magnets; laws of magnetic attraction and repulsion; polarity; magnetic induction; terrestrial magnetism; construction of simple voltaic cell; decomposition of water by electricity; electro-magnet; electric bell; telegraph; heating and lighting effects of the current.

NOTE.—In both Physics and Chemistry, practice in the preparation and manipulation of apparatus should form part of the course. Where practicable, the course should also include simple operations in glass-blowing and lathe work, and in hard and soft soldering.

Chemistry

SECOND YEAR

March

Air: Its constituents; combustion in air, and resulting changes; detection of carbon dioxide and water vapour in air; rusting of a metal such as iron in the air, and how it affects the air.

Water: Decomposition of, into its elements; the obtaining of pure water, and how it differs from ordinary water.

Carbon: Its presence in plant and animal substances; combustion of carbon, and limewater test for carbon dioxide.

APPENDIX E

MODEL SEASONAL COURSE IN ART

The following is to be taken not as a detailed prescription of the Lower School course in Art, but rather as a guide to the inexperienced teacher as to source material, and a natural sequence of exercises. In order to adapt the lessons to the available materials for study, nature drawing and colour study should be combined in spring and autumn. The winter months lend themselves more readily to the study of the principles of perspective, object drawing, and design. Memory drawing should follow the study of different objects throughout the course.

Not all the details of this course are compulsory. Neither is the list of subjects intended to be exhaustive Enough, however, has been suggested to allow a choice to be made.

First Year

September and October.

The first lesson should deal with (*a*) the necessary materials, (*b*) their care, (*c*) the proposed method of orderly procedure.

Study of a freehand alphabet to be used in lettering drawings.

Brush drawings in black ink or black paint of grasses (in head), bulrushes, milkweed (pods and stems), clover, daisies, golden-rod or teazel.

Brush drawings in two or more tones of one colour of a spray of leaves, of an apple spray with fruit and leaves, of onions with sprouts, or of poppy heads and stems.

Brush washes, for backgrounds, in appropriate tints of low intensity, (1) plain, (2) graded; painting upon these a spray of some simple autumn flower, such as the daisy, clover, golden-rod, etc.

Drawing in pencil, or painting in colour a simple Autumn landscape composition.

Picture study based on any two of the following.

The Gleaners, by Millet. The Gleaner, by Jules Breton.
Æsop, by Velasquez. The Last Supper, by Da Vinci.
Portrait of George Gisze, by Holbein.

November and December.

Drawing the simpler type objects alone and in groups of two or three. Type objects in skeleton form should be used for the study of perspective; the solid objects for light and shade and composition.

Drawing in freehand perspective of the interior or part of the interior of the school room.

Lettering, in black ink, a motto, or a book title, well placed.

Applied design; one of the following:—

A Thanksgiving Programme, a Menu Cover, a Christmas Book Cover, a Christmas Card, a Calendar for the New Year, a Sofa Cushion Cover.

Picture study based on any two of the following:—

The Sistine Madonna, by Raphael. Moses, by Michelangelo.
Mother and Child, by Brush. The Fog Warning, by Homer.
The Light of the World, by Holman Hunt.

January, February, and March.

Drawing in pencil any two of the following, in light and shade, and with appropriate background:

A chalk-box with lid partly drawn, a group of books, a group of pottery, a group of garden implements or utensils.

Drawing in pencil some of the trees of Winter, such as the poplar, pine, apple, oak, maple, cedar, elm, etc.

Figure drawing: (*a*) Boys in turn posing before the class to represent:
The batter, pitcher, or catcher in baseball.
The young fisherman or the boy scout.
(*b*) Girls in turn posing before the class to represent:
Skipping, serving at tennis, sewing, or reading, etc.
Painting a simple Winter landscape from a description given by the teacher.

Making a drawing to illustrate one of the following:

(1) "Far off, three mountain tops,
Three silent pinnacles of aged snow,
Stood sunset flushed."

(2) "Walk now among the forest trees,
Saidst thou that they were stripped and bare!
Each heavy bough is bending down
With snowy leaves and flowers, the crown
Which Winter regally doth wear."

Picture study based on any two of the following:—

The Armada in Sight, by Seymour Lucas. The Syndics, by Rembrandt.
Shoeing the Bay Mare, by Landseer. The Blue Boy, by Gainsborough.
1814, by Meissonier.

April, May, and June.

Painting trees in leaf, preferably those drawn in Winter (alone or in groups with a simple background of fence or hillside, etc.).

Painting some of the following:

Pussy-willows, catkins, violets, Spring-beauties, periwinkles, Jack-in-the-pulpit, dog tooth violets, hepatica plant, plant of pansies.

Painting a simple Spring landscape composition.

Making a pencil drawing or a water-colour sketch to illustrate one of the following:

(1) "Upon a pasture hill a pine tree stands,
And in the air holds up its slender hands."

(2) "We're going fishing in the creek
With bran new hook and line."

(3) "We're going hunting in the woods,
O, holidays are fine!"

(4) "Break, break, break,
At the foot of thy crags, O Sea!"

(5) "The Summer Sun is sinking low;
Only the tree-tops redden and glow;
Only the weather-cock on the spire
Of the neighbouring church is a flame of fire;
All is in shadow below."

Design for a portfolio cover for the year's work (with motif conventionalized from some flower, leaf, insect, or other natural object drawn during the year).

Picture study based on any two of the following:

Spring, by Mauve.
Spring, by Daubigny.
The Sower, by Millet.
The Escaped Cow, by Jules Dupré.
Children of Charles I., by Van Dyck.

Second Year

September and October.

Drawing and painting a selection from the following:

Sprays of the closed blue gentian.
Rose leaves and hips.
Clumps of mushrooms or fungi.
Nasturtium leaves and flowers.
The wild carrot in flower.
A basket of apples.
A group of vegetables.
Sprays of sweet peas.
Autumn leaves.
Mullein stalks, leaves and seed.
The golden-rod.
The purple aster.
A box of onions.
A group of fruits.

Painting an Autumn landscape of local interest, such as—

"The pasture field bars" (shaded by a tree).
"On the edge of the forest."
"An Autumn hillside."
"A fence corner aglow with autumn flowers."

Making a pencil sketch to illustrate one of the following:

(1) Milking time.
(2) The old swimming hole.
(3) "I saw her singing at her work,
And o'er the sickle bending."
(4) "Now by the brook the maple leans,
With all his glory spread,
And all the sumachs on the hills
Have turned their green to red."

Picture study based on any two of the following:

The Laughing Cavalier, by Franz Hals
Captive Andromache, by Leighton.
The Frugal Meal, by Israels.
Landscape with Windmill, by Ruysdael.
The Coming Storm, by George Innes.

November and December.

Making a well composed group of any one of the following, and expressing in a suitable medium:

Several kitchen utensils.

Two or three pieces of coloured pottery.

A hat, coat, chair, and satchel.

A candlestick or vase with a magazine or book.

Making a stencil design for a wall-paper border, or a design for a table centrepiece with motif conventionalized from some natural form drawn during the autumn.

Lettering; using the Roman, Lombardic, Monastic, or the Old English Text, design a Christmas Card.

Picture study based on any two of the following:

The Holy Night, by Correggio. The Holy Family, by Murillo.

The Finding of Christ in the Temple, by Holman Hunt.

In the Temple with the Doctors, by Hofmann.

Portrait of the Painter's Mother, by Whistler.

January, February and March.

Making a decorative composition in colour from drawings made in the autumn.

The principles of perspective applied in the drawing of

(*a*) A housetop, or

(*b*) A view along the street, or

(*c*) A pier and line light-house.

Figure drawing; any one of the following groups:

Two members of the class posing together to illustrate a tug of war, a game of marbles, batter and catcher, having a chat, etc.

Making a pencil or water colour sketch to illustrate one of the following:

(1) "There, by the sheepfold, sometimes was he seen,
Sitting alone, or with his faithful dog,
Then old, beside him, lying at his feet."

(2) "This little bay, a quiet road
That holds in shelter thy abode."

Picture study based on any two of the following:

Ulysses Deriding Polyphemus, by Turner.

Napoleon on Board the Bellerophon, by Orchardson.

The Age of Innocence, by Reynolds.

The Boyhood of Raleigh, by Millais.

Return to the Farm, by Troyon.

April, May and June.

Making two sketches of daffodils, one in pencil, another in water colours.

Painting in water colours any of the following:

A spray of apple blossoms.

A spray of cherry blossoms.

A spray of wild rose blossoms.

Out-of-doors pencil sketching of any of the following:

A hen coop with hen and chickens with a background of fence and shrubbery.
A dog kennel and dog, shaded by a maple tree.
A man ploughing in a field.
A boy fishing from a boat or pier.
Illustrate any of the following:

(1) "The Sun set long, long ago against the pearly sky,
Elm branches lift their etching up in arches slight and high."
(2) "The noisy geese that gabbled o'er the pool."
(3) "Where the quiet-coloured end of evening smiles
Miles and miles
On the solitary pastures where our sheep
Half-asleep
Tinkle homeward thro' the twilight."

Designing a portfolio cover for the year's art work with a motif conventionalized from daffodil, apple blossom, the wild rose, or any other flower.
Picture study based on any two of the following:
The Cornfield, by Constable. Paysage, by Corot.
The Forest of Fontainbleau, by Rousseau.
A Reading from Homer, by Alma-Tadema.
The Road to Camelot, by Boughton.

APPENDIX F

MANUAL TRAINING

The following are the topics and sub-topics of the courses in Manual Training of the Lower School; for the Regulations, see Circular 3:

FIRST YEAR

Drawing.—Simple plans and elevations. Correct use of drawing board, T-square, triangles and compasses. Construction of the common geometrical figures. Simple lettering and figuring. Working drawings of objects made, either full size or to scale.

Wood Work.—Growth, structure, and identification of the woods used in the manufactures of the locality. Warping, twisting, checking; how caused and counteracted. Making of simple objects according to drawings previously prepared. Proper use of nails, screws, and glue. Use of simple joints in articles made; for example, end half lap, centre half lap, mitre, housing. Use and mechanical construction of common woodworking tools as exemplified in the making of a series of useful objects. Construction of simple school apparatus.

At least every alternate piece of work shall be kept for inspection.

SECOND YEAR

Drawing.—Elementary orthographic and isometric projection. Simple sections. More advanced geometrical drawing. Freehand dimensioned sketches. Inking, tracing, lettering, and blue printing. Working drawings of objects made.

Wood Work.—Growth, structure, and identification of the woods used in the locality. Tool sharpening. Common joints used in various kinds of wood work —scarfing, simple dovetail, mortise and tenon, tongue and grooved joint—their use in making objects such as boxes, drawers, tables, book-cases, etc. Fastenings with dowels, pins, cleats, wedges, etc. Calculations from drawings and specifications of lumber required for articles made and cost.

At least every alternate piece of work shall be kept for inspection.

Various methods of finishing, as staining, fuming, filling, shellacing, oiling.

Wood Turning.—Explanation of the lathe, its action, speed, parts, care, and use. The gouge, correct position, turning rough cylinder. The skew chisel; reason for grinding both sides and at an angle. Concave surfaces with skew chisel. Irregular curves and spindle work. V grooves, beads and hollows. The introduction of hard wood and sand paper; exercises in turning handles. Face plate turning, chuck work, boxes with covers, powder box, napkin ring, goblet, etc.

Every piece of work shall be kept for inspection.

Forging.—The forge, the fire, the heat, the height of anvil, and its position.

The ordinary tools, how to use and care for them. Hammer, sledge, chisel, fuller, and swage. Drawing, forming, upsetting, bending, and twisting iron, stamping and forge-blacking the finished piece, exercises of simple design and construction, gate hook, turning eye and hook. Scarfing, bending, and welding.

Every piece of work shall be kept for inspection.

Machine Shop Practice.—Simple ornamental work in brass, copper, and iron. The making of simple objects such as watch fobs, paper knives, blotter corners, trays, bowls, etc.

Simple chipping and filing. Use of measuring and marking tools; soldering and brazing.

An elementary study of the engine lathe: its parts, adjustment and working. Proper tool angles and cutting speeds and feeds. The exercises taken should, where possible, involve completed objects.

Every piece of work shall be kept for inspection.

APPENDIX G

HOUSEHOLD SCIENCE

The following are the topics and sub-topics of the course in Household Science for the Lower School; for the Regulations, see Circular 3:

FIRST YEAR

The extent of the review of the course of Form IV and the length of time spent on it must be determined by the work previously taken by the pupils, but the following should be assured.

Cleaning.—Best methods of cleaning dishes, dish-towels, sinks, wooden surfaces, steel, nickel, silver, aluminum.

Cookery.—Construction and care of a practical stove.
Practice in cooking milk, eggs, meat or fish, fruit, vegetables, cereals.
Principles involved in flour mixtures.
Principles involved in the preservation of food.

Foods.—Food elements in milk, eggs, meat or fish, fruit, vegetables, seeds.
Planning simple home meals.

The House.—This subject is taken more to form new bases of thought than to give definite knowledge. It is intended that two or three lessons shall, in a very general way, cover the following points:
Site (soil, sun exposure, environment).
Plan (material, number, size and relative position of rooms).
Lighting (candles, coal-oil, gas, electricity, considered from standpoints of lighting-power, heat, vitiation of air, care and cost).
Heating (fire-places, stoves, hot-air and hot-water furnaces considered and compared).
Ventilating (sources of house-air impurities, purpose of ventilation, simple home methods).
Sanitation (principles involved in the sanitary care of the house and premises).
Furnishing (material, form, colour, care required when in use).

Home Nursing.—Review of the course for Form IV of the Public Schools.
The course may be extended if time permit.

NOTE.—Where no equipment is provided a doll's bed may serve.

Laundry Work.—Necessary materials (water, alkalies, soap, blueing, starch), and the action of each.
Processes in the washing of white clothes, coloured clothes, woollens.

NOTE.—The above subjects are intended to be taught simply (not technically). In schools where there is no laundry equipment, the order of work may be developed in class and the practice carried out at home.

Sewing.—Review and extension of the course of Form IV, as far as the condition of the pupils' knowledge necessitates, using finer materials.
Household linen: making towels and sheets, hemming table-cloths.
Underclothes, a simple dress or kimona or shirt-waist (machine or hand made). Use of the machine optional.

SECOND YEAR

Cookery, Foods.—Review of the First Year course and its extension to more advanced cookery.

NOTE.—In the advanced cookery, the dishes should be chosen according to the demands of the home life of the pupils.

Marketing.—Seasons for domestic and well-known imported foods.
Current prices of food, with practice in buying.

NOTE.—If possible, markets and shops should be visited, and pupils given the responsibility of buying home and school supplies.

Entertaining.—Writing invitations and replies.
Planning and preparing for guests.
Duties of hostess and guests.

NOTE.—In school, one theoretical and one practical lesson will be sufficient for this. Additional practice may be obtained in entertaining at home.

Household Accounts.—Systematic spending of the income.
Keeping account of household expenses.

Sewing.—Advanced stitches applied to small garments.
Hemmed patch, fine mending.
Instruction in the use of patterns.
Cutting out and making simple garments.
Threading, running, oiling and cleaning of sewing machines; use of attachments optional.

APPENDIX H

AGRICULTURE AND HORTICULTURE

The following are the Regulations and courses of study for Agriculture and Horticulture:

I LOWER SCHOOL

REGULATIONS

1. (1) Schools intending to undertake for the first time or to continue the work in Agriculture and Horticulture and thus qualify for the entire annual grants, shall notify the Deputy Minister at as early a date as possible before December 31st. This notice shall be signed by the Chairman of the Board as well as the Principal.

(2) (*a*) The work shall not be undertaken unless there are at least six pupils in regular attendance in the class of each year.

NOTE.—While only six pupils are required in order to commence the work, it is very desirable that as many as possible of the pupils of the classes concerned should take it up. Principals and Boards of Trustees are urged to use their influence to this end, particularly in the case of pupils who might profitably take up the work.

(*b*) The instruction shall be given by a science teacher who holds the degree of B.Sc.(Agr.) or an Intermediate certificate in Agriculture, or by the District or Assistant District Agricultural Representative.

(3) The time allotted to the work shall amount to at least two hours a week during the year for the class of each year in the Lower School, under the personal supervision of and instruction by the teacher; a definite time must be allotted for the work of instruction, satisfactory to the Director. Under the conditions prescribed in Regulation 8 (1) (*a*), p. 21, any time taken for the instruction of the classes before or after the regular school hours or on Saturdays may be counted.

(4) It is not necessary that the pupil should carry on the practical work at his own home. In some cases he may arrange to undertake some line of work in a neighbour's field or garden, for which he may accept payment; or he may carry out the work in one of the experimental plots at the school. Neither is it necessary that the pupil should perform all the work alone; but where labour is hired or assistance given, this should be duly acknowledged in the records and considered in calculations.

(5) The work to be undertaken by the pupils as home projects should be considered and selected early in the course so that there may be sufficient time for reading up on the subject and maturing plans. In assisting a pupil to select a project, his age and home interests should all be considered. The aim should be to choose some project which can in all probability be carried through successfully. The pupils in each class should be restricted to a limited number of undertakings and groups of pupils should work at some common projects. The work may be carried out through the organization of a *School Progress Club*, in which case the number of projects will be best limited to a very few. A large number of projects has been outlined in Circular 13 (1), but only a few should be undertaken in one year by the pupils in a class. The suggestions also show what might be chosen for the experimental and demonstration plots on the school grounds. Some of the

simpler projects or those requiring only a short period in which to carry them through, might be supplemented by others. Generally speaking, the project which involves careful attention through a period of some length should yield the largest educational returns.

(6) Throughout the year the teacher shall record from week to week on a special form to be provided by the Department of Education, the instruction given in the school, and the practical work carried on in connection therewith. At the end of December these records shall be forwarded by the teacher as a report to the Minister of Education.

(7) (*a*) Records of the instruction given in school and the practical work carried on in home projects or in school plots shall be kept systematically by the pupils also. These records shall be available for inspection.

(*b*) The collections of economic plants, insects, and weed seeds, made in connection with the work, shall also be available for inspection.

(*c*) In projects that have a commercial side to them, the records should show the time spent on the work and the value of the products.

(*d*) The records should be kept in some uniform system, preferably in a loose leaf note-book.

(8) For guidance in carrying out the course the teacher should apply to the Director of Elementary Agricultural Education, Department of Education, Toronto, and for the circulars, to the Deputy Minister of Education.

COURSES OF STUDY

2. The following is the Lower School Course of Study. Subject to the approval of the Director, necessary modifications may be made of the following to suit local conditions.

FIRST YEAR

September

Physics: Measurements of fields and surveys for drainage; needs, value and method of drainage.

Gardening: Selection, purchase and outdoor planting of bulbs; methods of potting and forcing bulbs for winter bloom.

October

Plant Studies: Field studies of weeds; habit of growth and seed distribution; methods of eradication.

Fruit Growing: Fall management of orchard, pruning and cultivation; methods and systems of fruit packing; work of co-operative fruit associations; law relating to fruit marking, etc.

Beekeeping: Management of bees in fall and winter.

November

Poultry: Housing, feeding and management of poultry in winter; fattening and marketing; breeds.

Agricultural Arithmetic: Estimating of holding capacities of mows, bins, wagon boxes, silos, cisterns, wells, troughs, barrels, milk utensils; estimates of weights of hay loads, stacks, manure piles; estimate of sand, cement, lime, brick, stone or lumber required in building barns, sheds, silos, etc.

Horticulture: Cutting scions from fruit trees to store for root-grafting in winter. Planting apple seeds for production of seedlings.

December

Chemistry: Simple study of plant substances, such as determination of moisture, carbon, ash, starch, and gluten; simple studies of soils, insecticides, fungicides, and common substances used on the farm.

School Meeting: Public meeting at school at which reports on work done will be given and prizes distributed.

January

School Progress Club: Organization and plans for home project work; arrangements for preliminary reading, recording, and supervising work.

Dairying: Milk testing with Babcock tester; care of milk and pasteurization; use of lactometer; individual cow records and herd improvement; care of dairy herd; construction of dairy stables.

February

Botany: Determination of weed seed impurities in clover seed, etc.; germination tests of farm and garden seeds; Seed Control Act; methods of combating weeds.

March

Soil Studies: Simple physical analyses of different classes; comparisons by weight; determination of air and water capacities, capillarity; effects of frost, lime and humus on clay.

Gardening: Preparation, care and uses of hot bed and cold frame; methods of growing potatoes, onions, rhubarb, lettuce, cabbage, tomatoes, etc., for early crops; small fruit culture; methods of growing strawberries, raspberries, currants, grapes, etc.

April

Poultry: Incubation, brooding and rearing of chicks; management of poultry in summer.

Gardening: Beautifying of home surroundings; plans for home gardens; preparation of soil; selection of varieties; planting tables; care of growing plants.

May

Garden Work: Preparation and planting of experimental and demonstration plots in school garden; work in home gardens.

Beekeeping: Colony studies to learn organization, life histories and work of bees; construction of hives; methods of handling.

Botany: Study of flowers of fruit trees, the setting and development of fruit; natural and artificial fertilization; flowers and seed-development of forest and shade trees.

June

Insects: Recognition, life histories, work and remedies for insects injurious to orchard and garden; spraying mixtures and application.

Botany: Study of economic plants, such as grasses, ornamental shrubbery, garden flowers.

Crop Improvement: Plans for selecting choicest seed of grains, vegetables or flowers for next year's growing; work of Canadian Seed Growers' Association.

July and August

Supervision of Practical Work: Reports on care and management of school experimental plots and home projects of pupils.

SECOND YEAR

September

Gardening: Storing vegetables, fruits and house plants for winter; methods of winter forcing of rhubarb, swiss chard, etc.

Bacteriology: Moulds and bacteria in relation to canning and preserving; methods of canning. Work of bacteria in soil; legume bacteria.

October

School Exhibit: Exhibition of pupils' and school's work at school or local fair.

Horticulture: Preparation for winter of tender climbing plants, shrubs and flowers; lifting, dividing and replanting perennials.

Home Projects: Reports on home gardening projects and summarizing results.

November

Farm Animals: Breeds of cows, horses, sheep and swine; practice in using score cards, telling of age of horses by teeth; care and management of farm animals; construction of stables.

December

Rural Economics: Laws relating to agriculture; organizations for advancing agriculture; co-operative associations; value of good roads; rural advancement, etc.

January

Dairying: Simple analysis of milk to show albumin, casein and sugar; composition and value of whey and buttermilk; experiments to show effects of bacterial or mould contamination; construction, care and advantages of cream separator; manufacture of butter and cheese; dairy manufacturing; visit to creamery or evaporator.

February

Farm Crops: Kinds of farming and the best kinds for the neighbourhood; crops best suited to locality and best varieties of grains; methods of crop improvement; systems of rotations and values; plans for model farms.

March

Physics: Principles of farm machines or appliances; simple experiments with pulleys, levers, etc.

Chemistry: Uses of manures and fertilizers; examination, identifications and simple tests for common commercial fertilizers; calculation of values and proportions in which to be mixed.

April

Fruit Growing: Selection of location and planting plans for orchards; varieties suited to local planting; orchard management and care; methods of pruning and grafting.

Agriculture: Methods of soil cultivation; best times and methods of seeding. Farm management: care of machinery, costs of manuring, soil preparation, seeding, harvesting, threshing and marketing.

May

Garden Work: Work in home gardens or school plots.

Botany: First year's work continued.

Beekeeping: First year's work continued.

June

Insects: First year's work continued.

Botany: First year's work continued with study of common plant diseases and treatment for them.

Horticulture: Methods of budding and propagation by cuttings.

July and August

Supervision of Practical Work: Reports on care and management of school experimental plots and home projects of pupils.

II MIDDLE SCHOOL

REGULATIONS

1. (1) The Middle School Course may be taken only in schools where the Lower School Course is also being taken.

(2) The Regulations for the Lower School apply also to the Middle School. Similar requirements as regards the instruction and examinations shall be met for both the Lower School and the Middle School, as follows:—

(*a*) Annual notification of intention to undertake the work shall be sent to the Deputy Minister of Education, Toronto.

(*b*) The instruction shall be given by a science teacher who holds the degree of B.Sc. (Agr.) or the Intermediate Certificate in Agriculture or by a District or Assistant District Agricultural Representative.

(*c*) The course shall extend over at least one year and the provision therefor in the teachers' timetable shall be at least three periods a week of one hour each.

(*d*) In addition to the school work, home projects, supervised by the teacher, shall be carried out by pupils. Systematic records of this work shall be kept by the pupils.

(*e*) Teachers shall keep records of the instruction given, and at the end of December shall send in the prescribed reports to the Minister.

COURSES OF STUDY

2. The following is the Middle School Course of Study. Subject to the approval of the Director, necessary modifications may be made therein to suit local conditions:

FIRST YEAR

Chemistry: Chemical composition of soils, elements used by plants; availability and assimilation of plant food in the soil; application of fertilizers; absorption and retention of important constituents, as nitrogen, phosphoric acid, and potash; insecticides and fungicides; their composition and proper mixture.

Physics: Soil: classification and physical examination, origin, and mode of formation; soil forming, soil-forming rocks and minerals; behaviour towards moisture. Surveying and drainage; measurement of fields and farms with the chain; calculating areas and drawing plans; use of various instruments for determining levels, preparing plans for drainage; methods of digging, laying of tile, and filling of trench; calculations concerning required size of tile and cost of various systems. Conservation of moisture by drainage, mulching, and cultivation; capiliarity and its relations to plant growth. Water capacity of different soils. Mechanics: principles of farm machinery; principles of ventilation, lighting and heating.

Botany: Identification and eradication of weeds and weed seeds, seed Control Act and its application; experiments to show seed germination and growth of plants; the relation of plants to soil, air, light, temperature, and moisture; systematic study of the structure of cereals, grasses, legumes, and roots; plant diseases; smut, rust, mildew, etc.; how to recognize and combat them; collecting, pressing, and mounting of weeds and grasses and weed seeds.

Entomology: A practical course in economic insects, identification, habits, and life histories; a close study of the more important insects, by means of breeding and rearing cages; insecticides; collecting of injurious and beneficial insects and samples of their work.

Micro-Biology: Morphology and physiology of micro-organisms, moulds, yeasts and bacteria; bacteriology of soil, legume cultures; bacteriology of dairy; contamination and care of milk; bacterial diseases of plants; bacteria in relation to household.

Poultry Husbandry: The most valued breeds and varieties of hens, ducks, geese, and turkeys, their characteristic points and peculiarities; various methods of housing poultry; incubation, brooding, and rearing of chickens; general methods of feeding and management; market conditions; the fattening and dressing of poultry for home and foreign markets.

Beekeeping: Management, wintering, swarm control, honey production, increase, queen-rearing, symptoms and treatment of disease.

SECOND YEAR

Farm Management: Needs of business methods in farming; farm accounting; factors determining cost of production; profitable employment of labour, equipment and capital; the problems of maintaining fertility, adapting methods of farming to changed conditions, carrying on farm work economically.

Rural Economics: The farmer's relation to society and industry; social advantages and needs of rural life; relation of land, capital, labour, taxation, banks, markets and transportation facilities to the business of farming. Methods and principles of co-operation in farm work, manufacturing, marketing, and banking.

Field Husbandry: History of agriculture; different systems of farming, different kinds of soil; rotation of crops, farm crops in their relation to drainage; application of manures; green manuring; preparation of the land for the different crops; methods of cleaning, testing, and selecting farm seeds; study of cereals, roots, fodder crops, grasses, clovers and other farm crops; sowing, harvesting, preserving, marketing.

Animal Husbandry: A study of the history and characteristics of the principal breeds of live stock including light and heavy horses, beef and dairy cattle, sheep and swine; feeding and management; principles of breeding; registration of pedigrees; market requirements.

Visits to local farms, and practical work in judging stock.

Dairy Husbandry: The herds: formation, care, and management of a dairy herd, rearing of calves; dairy stables; lighting, cleaning, and ventilating; individual cow records. The milk: care of milk, elementary chemical and bacteriological study of milk. The home dairy: running of hand separators and care of dairy utensils; manufacture, packing, and marketing of butter.

Visits to local creameries and cheese factories, and a study of factory methods of manufacture, packing and marketing.

Horticulture: Fruitgrowing: Treatment of fruit plantations; cultivation, grafting, propagation, spraying, marketing. Vegetable Growing: Methods of sowing and cultivating, treating for diseases or insect pests, marketing; preparation and care of hot beds and cold frames; production of early vegetables; selection of varieties. Floriculture: Methods of cultivating, seeding, transplanting, treating for diseases or insect pests, wintering; propagation of cuttings; flower borders; bulb culture. Landscape Gardening: Improvement of school and home grounds; tree planting; care of shrubbery.

Forestry: Forestry as related to the farm; classification of the common forest trees, the establishment, care and protection of the wood-lot; varieties and methods for roadside planting and shelter belts.

PART II

Departmental High School Examinations

Departmental High School Examinations

ADMISSION TO THE HIGH SCHOOLS

Except where otherwise stated, the Entrance Board in the following Regulations means the High School Entrance Board of Examiners, consisting of the members appointed under the High Schools Act, excluding the additional members appointed under Sections 47 (3) and 48 (1) (a). In the case of the Public and Separate Schools, Principal includes the teacher in a one teacher school.

1. Under *The High Schools Act,* and subject to the Regulations hereinafter contained, candidates may be admitted by an Entrance Board, at the close of each school year, to either the Lower School of the High Schools on passing the Junior High School Entrance examination or to the Middle School on passing the Senior High School Entrance examination.

NOTE.—**The appointed members of an Entrance Board remain in office until their successors have been appointed.**

DAY HIGH SCHOOLS

JUNIOR ENTRANCE EXAMINATION

SUBJECTS

General

2.—(1) Candidates for admission to the Lower School shall have completed the courses in the subjects of the following groups in accordance with the Regulations for Form IV of the Public and Separate Schools:—

GROUP I—History, Art, Hygiene, and Nature Study.

In the case of candidates from schools where Manual Training, Household Science or Agriculture and Horticulture is taken up in accordance with the Regulations as reported by the Departmental Inspector or Director—

(*a*) Where the Entrance Board accepts the certificate of the Principal as provided in Regulation 4 below, it may prescribe in addition to the foregoing subjects Manual Training for boys, Household Science for girls, or Agriculture and Horticulture for boys and girls; and

(*b*) Where a written examination is held in subjects of Group I the Entrance Board may make the same prescription of the foregoing subjects as soon as, in the judgment of the Minister, examiners are available who are competent to set examination papers and to read answer papers, and who are not engaged in instructing candidates in the foregoing subjects.

GROUP II—Oral Reading, Writing, Spelling, Geography, Grammar, Literature, Composition, and Arithmetic.

(2) (*a*) Candidates shall also have read carefully during the preceding school year the Golden Rule Book IV and at least three other suitable works in English Literature, selected by the Principal for each pupil from a list prescribed by the Minister. See Circular 58.

(*b*) At least the Golden Rule book shall have been read by the pupils in class.

(*c*) Candidates shall also have memorized the list of selections prescribed by the Minister. See Circular 58.

(3) (*a*) A certificate from the Principal that the provisions of 2 (2) (*a*) and (*b*) above have been duly carried out shall be transmitted to the Inspector at least one week before the examination begins, in the case of those who take the written examination, and at a time to be fixed by the Entrance Board, in the case of those who claim admission on the Principal's certificate.

(*b*) Without this certificate, the candidate shall not be granted a Junior High School Entrance certificate.

(4) The question papers in Literature will be based partly on passages from the Fourth Reader and partly on sight passages. On these papers the candidate's knowledge of the selections for memorization shall also be tested.

Limitation of Courses in Hygiene, Art, and Nature Study

3.—(1) If the Public School Inspector or Inspectors who are members of an Entrance Board deem it necessary in the condition of their schools to omit some of the topics or sub-topics of the Hygiene, Art, and Nature Study of Form IV, he or they shall propose them to the Entrance Board, which may recommend to the Minister, with or without modifications, such proposed omissions.

(2) Where there are more Entrance Boards than one in an inspectorate, the omissions provided for above shall be proposed to each Board by the Public School Inspector or Inspectors and shall be settled by correspondence conducted, or at a conference called, by the Inspector or Inspectors, as he or they may deem it expedient.

(3) The Public School Inspector or Inspectors concerned shall report the recommendations of the Entrance Board or Boards to the Minister, with the reasons therefor and any report he or they may desire to make thereon, not later than October 31st of the school year 1914-1915 and October 1st in subsequent years.

(4) On receipt of the Minister's decision, the Public School Inspector shall communicate it forthwith to the Separate School Inspector and the Principals of the Public and Separate Schools concerned, and to any other schools or candidates that may apply for information.

(5) When there are more Public School inspectors than one in a High School district, the duties assigned in (1), (2) and (3) above to the Inspector shall be performed by the Chief or Senior Public School Inspector, as the case may be, after due consultation with his colleagues or colleague.

SCHEMES OF ADMISSION

4. As provided by *The High Schools Act* and subject to the Regulations herein contained an Entrance Board shall admit candidates to the Lower School of a High School in accordance with one of the following schemes and the Regulations pertaining thereto:

(1) (*a*) In the case of Group I, on a written examination in one or more of the subjects of the group on question papers prepared by members of the Entrance Board whose pupils are not candidates at the examination, the certificate of the Principal of the Public, Separate or Normal Model School being accepted in the case of the subject or subjects in which no examination is held; *or,* on the certificate of the Principal of the Public, Separate or Normal Model School in regard to all the subjects of the group.

(*b*) In the case of Group II, on a written examination in all the subjects of the group, on question papers prepared by a Provincial Board appointed by the Minister; *or* on the certificate of the Principal of the Public, Separate, or Normal Model School in regard to all the subjects of the group.

(2) The certificate of the Principal prescribed in (1), (*a*) and (*b*) above shall state that the candidates from his school whom he recommends for admission have completed to his satisfaction and in accordance with the Regulations the courses in the subjects to which his recommendation refers, and shall be accepted by the Entrance Board only after due investigation as provided in Reg. 11 (2) below.

(3) As early as possible in each school year, the Entrance Board shall notify the Inspectors in charge of the Separate and Normal Model Schools in its district, of the scheme of admission it has decided to adopt.

(4) On the report of the High School Inspector that the attainments of the pupils admitted on the certificate of a Principal are not satisfactory, the Minister may order that the system of admission be amended, or that, until further notice by him, the pupils from such school shall be admitted thereafter under the examination system.

(5) The Principal of a High School may accept a Junior Public School Graduation Diploma in lieu of a Junior High School Entrance certificate.

(6) Candidates from schools which have not been inspected by a Public or Separate School Inspector or the Inspector of Normal Model Schools shall take the written examinations in all the subjects of both Groups.

(7) Where an Entrance Board admits candidates to the High Schools on the Principal's recommendation in the case of Group I or of Group II or of both Groups, candidates not so admitted shall be entitled to take a written examination for admission in the subjects of Group I on papers to be prepared by the Entrance Board and in the subjects of Group II on the papers prepared by the Department of Education.

ADMISSION ON EXAMINATION

Centres and Dates

5.—(1) The written examination on the subjects of Group I shall be held annually at such centres and on such dates as the Entrance Board may select within the thirty days immediately preceding the examination in Group II, and a copy of each examination paper so set shall be sent to the Minister with the Entrance report.

(2) The written examination on the subjects of Group II shall be held annually in June at the centres provided in *The High Schools Act,* in accordance with a time-table to be issued by the Minister from time to time.

Duties of Candidates and Inspectors; Fees

6.—(1) Either directly or through the Principal, each candidate shall notify the Public School Inspector concerned before April 15th of the examination centre at which he purposes writing.

(2) Except with the approval of the Public School Inspector or Inspectors concerned, each candidate shall write at the examination centre within the inspectorate nearest the school at which he was prepared for the examination.

(3) The Inspector shall notify the Deputy Minister not later than April 20th in each year on a form to be supplied by the Department, of the number and location of the Entrance centres in his inspectorate, the name and address of each Presiding Officer, and the probable number of candidates for examination at each of such centres. Immediately thereafter he shall send to each Presiding Officer one copy of the Circular of Instructions.

(4) Candidates shall pass in both Groups I and II in the same year.

(5) Where candidates are charged fees, as provided in *The High Schools Act*, such fees shall be paid to the Chief Presiding Officer at each centre before the close of the first day of the examination, and shall be paid over at or before the close of the written examination to the Treasurer of the County or of the High School Board, as the case may be.

Principal's Report

7.—(1) (*a*) Before the examination begins, a report as to the standing of his candidates in the subjects of the examination shall be sent by every Principal to the Public School Inspector for the consideration of the Entrance Board in connection with the examination results.

(*b*) Only the names of the candidates who, in the judgment of the Principal, have satisfactorily completed the course for this examination may be included in the report.

(2) On application to the Deputy Minister, blank forms for the use of Principals in making their reports on the standing of their candidates at the examination will be sent to the Inspector, who shall state the number required.

(3) (*a*) The reliability of the Principal's report shall be tested by a comparison of the marks assigned to each of the candidates in his report with those obtained by the candidates at the examination.

(*b*) A report that does not meet the foregoing test satisfactorily shall not be taken into account in settling the results.

Valuation of Answer Papers

8.—(1) (*a*) At the examination in Group II the answer papers shall be valued and the results reported to the Minister by the Entrance Board.

(*b*) The marks for the subjects of Group II shall be apportioned as follows:—

Oral Reading, Writing, Spelling, each 50; Literature, Grammar, Composition, Geography, and Arithmetic, each 100.

At the examination in Group I each subject shall be valued at 100 marks.

(2) (*a*) Two marks shall be deducted for each misspelt word in the answer paper in Spelling.

(*b*) In addition to the deductions for mistakes in the answer paper in Spelling, reasonable deductions shall be made for misspelling in all the other answer papers in the Group or Groups.

(*c*) Deductions shall also be made in each group for lack of neatness.

(3) Deductions made under this regulation shall be recorded on the back of the candidate's answer papers.

Pass and Honour Standing

9.—(1) (*a*) (i) At the examinations in Group II, a candidate who obtains 40 per cent. of the marks in each subject and 60 per cent. of the aggregate marks shall be entitled to Pass standing in the Group.

(ii) A candidate who obtains 40 per cent. of the marks in each subject and 75 per cent. of the aggregate of the marks for the examination shall be entitled to Honour standing.

(*b*) When a written examination is held in any or all of the prescribed subjects of Group I, the Pass percentages shall be fixed by the Entrance Board. At this examination the results shall be settled by the Entrance Board.

(2) When a candidate is near the Pass mark in either Group, the members of the Entrance Board, and the Assistant Examiners, when needed, shall re-read as many of his answer papers as may be necessary to settle the question of his fitness to take up High School work.

(3) At the examination in Group II the Entrance Board may recommend to the Minister for Pass standing a candidate who has failed in only one subject, but has made at least 25 per cent. in said subject and who has made, above the prescribed aggregate, not less than 4 marks for each defect of one mark in the subject.

(4) (*a*) After due investigation the Entrance Board may admit in Group I and may recommend to the Minister for admission in Group II, a candidate whose case deserves special consideration on account of age, illness or family bereavement affecting the examination, or other like unavoidable causes of failure at or absence from all or part of the examination, whose parents or guardian undertake that he shall enter a High School the following September, and who, in the judgment of the Entrance Board and of the Principal of the school in which he was prepared, is able to take up the work of the High School. In the case of Group II, full particulars shall be given in the report to the Minister.

(*b*) Allowance for age shall not be made in the case of a candidate—

(i) who is not at least fifteen years of age; or

(ii) who makes less than 25 per cent. of the marks in any subject; or

(iii) who, in the opinion of the Entrance Board, is not able to carry on the work of the High School.

(5) The Chairman of the Entrance Board may also submit a case to the Board for consideration on the complaint of any candidate or of any other person, made not later than September 15th.

(6) In making allowances, the Entrance Board shall also take into account the Principal's report provided for in Regulation 7, and when, in the case of Group II, special allowance is recommended in consideration of the report, this fact shall be noted in the "Remarks" column of the Entrance Board's report to the Minister.

Appeals

10. Candidates who have been finally rejected by the Entrance Board may have their papers re-read on lodging an appeal with the Deputy Minister before September 30th, and on paying a fee of $2.00, which will be returned if the appeal is sustained.

ADMISSION ON CERTIFICATE

11.—(1) When, as provided in Regulation 4 above, an Entrance Board decides to consider the desirability of adopting the scheme of admitting candidates from a school on the Principal's certificate in Group I or Group II or in both Groups, it shall direct the Inspector concerned to make a report to said Board in the case of each school in his inspectorate preparing candidates for admission to the High Schools, as to whether the subjects prescribed therefor in Groups I and II respectively are being taken up to his satisfaction in all the forms of the school, having regard to the character of the teaching, the organization, and the management.

(2) In the event of the Entrance Board's deciding, on said report, to admit candidates on the certificate of the Principal of any of said schools, the Secretary shall, as soon as practicable thereafter, notify the Principal of the Board's decision, and shall direct him to forward to the Secretary of the Entrance Board, on a date, not later than June 1st, to be fixed by it, for the consideration of said Board, a certified list of the candidates recommended, and a certified copy of the time-table in use in Form IV since the Inspector's last visit, with copies of the promotion examination papers in the Group or Groups set for the pupils of Form IV and with the results of said examinations, and any other records or particulars the Entrance Board may require. The Entrance Board shall settle which candidates on the Principal's list shall be admitted.

(3) The Entrance Board's decision as to the acceptance or rejection of the candidates listed in the Principal's certificate shall be forwarded by the Secretary of the Board to the Principal, so that he may receive the notice not later than one week before the written examination in the Group or Groups.

(4) If the Entrance Board desires any modification of the above scheme, it shall apply to the Minister for his approval, before putting it into operation.

ADMISSION BETWEEN EXAMINATIONS

12. A candidate who has attended a private school in Ontario or any school elsewhere, and who, for reasons satisfactory to the Principal and the Public School Inspector, or the Chief or Senior Public School Inspector, as the case may be, did not present himself at the preceding Entrance examination, may be

admitted to a High School, provided that, after due investigation and examination, he is, in their judgment, able to take up the work of the High School and that before such admission the Minister approves of the recommendation therefor, duly signed by the Principal and Inspector and setting forth the age, the school record, and the attainments of the candidate, and the reason why he did not present himself at the examination.

ORGANIZATION OF THE DAY ENTRANCE BOARD

Composition

13. Except for special reasons approved by the Minister, no Day High School Entrance Board shall consist of fewer than three members.

CHAIRMAN

14.—(1) The High School Principal, or one of the High School Principals to be selected by the Entrance Board when there are more High School Principals than one, shall be the Chairman of the Entrance Board.

(2) The Inspector or the Senior Inspector, as the case may be, shall be the Chairman of an Entrance Board on which there is no High School Principal.

15.—(1) The Chairman of an Entrance Board shall call and preside over the meetings of the Board.

(2) He shall see that the Board performs all the duties assigned to it by the Regulations.

(3) He shall sign all certificates and reports and shall see that they are forwarded by the Secretary in due time.

(4) He shall certify to and transmit the necessary statements for all payments due the members of the Entrance Board.

SECRETARY

16.—(1) The Public School Inspector, or one of the Public School Inspectors to be selected by the Entrance Board when there are more than one Inspector, shall be the Secretary of the Entrance Board. When the amount of work is too great for one Secretary, the Entrance Board shall appoint one or more Assistant Secretaries, who shall hold the qualifications of a member of the Entrance Board.

(2) (*a*) Where there is an Entrance examination, the Secretary or Secretaries shall enter and total in the minute book or other record the marks as reported by the Examiners, and, by indicating the passes, the doubtful cases, and the failures in subjects and totals, shall prepare the case of each candidate for the consideration of the Entrance Board.

(*b*) Where candidates are admitted without passing the Entrance examinations, the Secretary or Secretaries shall record the data which the Entrance Board accepted in making such admissions and the reasons for rejection when the Board did not accept the Principal's recommendation in the case of any candidate.

(*c*) The Secretary or the Secretaries shall also keep the other minutes of the Board, and shall forward the prescribed reports to the Minister and the certificates to the successful candidates and their marks to the unsuccessful candidates.

(3) In an inspectorate in a territory without county organization where there is no High School, the Inspector shall perform the duties of both Secretary and Chairman.

EXAMINERS

17.—(1) The members of the Entrance Board shall arrange among themselves the division of the examination of the subjects.

(2) No Examiner, whether he be a member of one or of more than one Board, shall have assigned to him for valuation, at the examination in Group I or Group II, more than the equivalent of all the answer papers of 75 candidates.

(3) Where an Inspector is a member of two or more Entrance Boards, he shall consult with the Chairman of each regarding the dates of the Board meetings and the number of answer papers to be assigned to him for examination, in order that (1) above may be duly observed, and that he may be able to attend the meetings of each Board.

(4) Where the foregoing Regulation necessitates the appointment of assistant Examiners, as provided by *The High Schools Act*, preference shall be given in the following order to Examiners qualified under said Act and competent in the judgment of the Board:

(*a*) Teachers actually and regularly engaged in teaching in a Public or Separate School the classes not lower than those of Form IV.

(*b*) Teachers actually and regularly engaged in teaching the lowest classes of a High or Continuation School.

18.—(1) As far as practicable, the answer papers of the different candidates shall be so distributed that the same Examiner shall read and value the answers in the same subject throughout, provided always that no Examiner shall read the answer papers of his own pupils.

(2) (*a*) As far as practicable, when the reading of the answer papers begins, all the examiners shall value together enough of the answer papers in each subject to enable them to maintain a uniform standard.

(*b*) In order also to secure as far as practicable uniformity of standard two or more Entrance Boards may jointly value the answer papers and settle the results.

(3) No one shall be permitted to examine the answer-papers except the members of the Entrance Board and the Assistant Examiners.

(4) When so directed by the Entrance Board, the Oral Reading of candidates in urban schools may be examined at said schools by a member or a committee of members of the Board, as the Board may decide, during the school days immediately

preceding those on which the Entrance examination is held, and in accordance with a time-table approved by the Principal.

PRESIDING OFFICERS

19.—(1) At each centre there shall be a chief presiding officer and such assistant presiding officers as may be required under (4) below. The chief presiding officer shall have the general oversight of the examination and the custody of the question and the answer papers, and both he and the assistant presiding officers shall be responsible directly to the Minister for the proper performance of their duties.

(2) The Principal of the High School shall be the chief presiding officer at his own school, and the Inspector may be the chief presiding officer at any other centre he may select.

(3) The other chief presiding officers, and the assistant presiding officers, shall be appointed and located by the Entrance Board.

(4) The number of candidates under each presiding officer shall not exceed forty.

(5) No presiding officer shall preside over his own pupils.

EXPENSES OF EXAMINATION

20.—(1) A Presiding Officer at the examination in Group I or Group II shall be paid at the rate of $5.00 a day, and an Assistant Presiding Officer at the rate of $4.00 a day, for presiding at the examination.

(2) A Presiding Officer whose place of residence is not at the centre where he presides shall be allowed the usual cost of conveyance for one return trip between his place of residence and the centre at which he presides.

(3) An Examiner in Group I or Group II whose place of residence is not at the centre where the meetings of the Entrance Boards are held shall be allowed for each meeting of the Board the usual cost of conveyance for one return trip between the centre and his place of residence.

(4) Except with the consent of the High School Board, the Board of Education, or the County Council, or the Minister, as the case may be, the allowance for said conveyance shall not exceed $3.00.

21.—(1) (*a*) The Examiners who set the question papers in Group I shall be paid at the rate of $5.00 a paper.

(*b*) The Examiners who read the answer papers of candidates at the examination in Group I shall be paid at the rate of 10c. an answer-paper, and at the examination in the subjects of Group II at the rate of 75c. a candidate.

(2) The Secretary shall be paid at the rate of $5.00 per day of six hours for secretarial work in connection with the entrance results when not performed at regular meetings of the Entrance Board, but his total remuneration for both the secretarial work and the reading of answer papers shall not exceed the amount provided for each of the other members of the Entrance Board under Regulation 17 (2) above; and when one or more assistant Secretaries are appointed the total remuneration of each for the same duties shall not exceed the total remuneration of the Secretary.

(3) For attendance at the meetings of the Entrance Board when making arrangements for the examinations or when settling the results both in the case of the written examination and the acceptance of the teacher's certificate, each member attending shall be entitled to $5.00 per day of six hours' work, in addition to the fee to which he is entitled under (1) and (2) above.

22.—(1) All payments under the High School Entrance Regulations shall be made on the itemized statement of the Chairman, as provided in *The High Schools Act;* but this statement shall not be rendered until the Minister has approved of the Entrance Board's report of the examination.

(2) The School Board at a centre, whether in a county or a territory without county organization, shall pay the cost of the stationery and any other necessary supplies and all other incidental expenses.

(3) A refund of any payment made to a Presiding Officer or Examiner may be required by the High School Board, the Board of Education, or the County Council in any case where it has been found subsequently to such payment that the Regulations have not been fully observed, and it shall be the duty of the Entrance Board to report to the School Board or the County Council for its action in any such case.

REPORTS TO DEPARTMENT

23.—(1) Where candidates are admitted either by written examination or on the certificate of the Principal, the Entrance Board shall transmit to the Deputy Minister, for the Minister's consideration, not later than fifteen days after the close of the examination, the report in the case of each candidate, in accordance with the particulars specified in the official form, with a solemn declaration, signed by the members of the Board, that the provisions of the Regulations have been duly observed.

(2) Under no circumstances shall any information whatever, concerning the results, be made public until the Secretary of the Board has been so authorized by the Minister.

(3) The marks obtained by the candidates, whether they have been successful, or have failed, shall not be made public, but unsuccessful candidates are entitled to their marks.

DISPOSAL OF ANSWER PAPERS

24.—(1) Except as provided in Regulation (2) (*a*) below, or when required by the Minister, the answer-papers of candidates at the examinations in Groups I and II shall not be forwarded to the Department, but shall be retained by the Chairman until May 31st of the following year.

(2) (*a*) The Entrance Board shall forward to the Department, per express prepaid, concurrently with the forwarding of its report of the examination, the answer papers of all the candidates at the examination in Group II who have been recommended for special consideration and whose names appear in the report.

(*b*) The answer papers for each centre shall be arranged by subjects, tied in one parcel, and the parcels for the several centres returned in one of the bags provided.

NIGHT HIGH SCHOOLS

Scheme of Admission

25.—(1) Subject to the Regulations, a candidate shall be entitled as provided by *The High Schools Act,* to enter a High School, conducted at night, when, in the opinion of a Night High School Entrance Board, consisting of the Principal of the High School and the Public School Inspector or the Chief Public School Inspector of the High School District, after due examination or other investigation, he is competent to take up the subjects as prescribed by the Regulations; but such admission shall not admit to the High School when conducted by day.

(2) Candidates who hold Junior High School Entrance or higher certificates shall also be entitled to admission.

Organization of the Board

26.—(1) Of the Night High School Entrance Board, the Principal of the Night High School shall act as Chairman, and the Inspector or the local Chief Inspector, as the case may be, shall act as Secretary.

(2) When the number of applicants is too large to allow the completion of the report, as prescribed under Regulation (3) (*a*) below, the Night High School Entrance Board may appoint, for the purpose of examining the applicants, one or more persons who shall be duly qualified for membership of a High School Entrance Board.

Conduct and Expenses of the Examination

(3) (*a*) Within one week after the application of the candidate, the Board shall submit for the consideration of the Minister, on an official form to be obtained from the Department, the following particulars in regard to said candidate:

Age, schools attended, school and examination record, result of the Board's investigation or examination, and the subject or subjects of the High School Course which the candidate wishes to study.

(*b*) The certificate of admission provided for below shall set forth the subject or subjects of the classes to which the candidate has been admitted.

(4) On the submission of an itemized statement by the Chairman of the Night High School Entrance Board, the High School Board or the Board of Education shall pay:—

(*a*) Each member and examiner of the Night High School Entrance Board $5.00 per period of six hours' work in connection with the admission of candidates; and—

(*b*) The cost of the stationery or any other necessary supplies and all incidental expenses.

CERTIFICATES

27.—(1) Subject to the appeal provided for in Regulation 10, and in every case, to the Minister's approval, the decision of a Day or Night Entrance Board shall be final with regard to the admission or rejection of any candidate.

(2) Each candidate admitted to a Day or a Night School shall be entitled to a certificate signed by the Chairman and the Secretary of the Entrance Board.

SENIOR HIGH SCHOOL ENTRANCE EXAMINATION

SUBJECTS

28.—(1) An examination for admission to the Middle School of a High School will be held in June of each year at such centres as the Minister may select, and in accordance with a time-table to be issued by him from time to time.

(2) The subjects of examination shall be those prescribed for Form V of the Public and Separate Schools, as follows:—

Oral Reading, English Literature, Geography, Spelling, English Composition, Writing, English Grammar, British and Canadian History, Arithmetic, and Algebra and Geometry, together with (*a*) Elementary Science and Art, *or* (*b*) Latin and French, *or* (*c*) Latin and German.

(3) (*a*) The examination in English Literature shall be based partly on sight passages and partly on the passages from the Literature prescribed. See Circular 58.

(*b*) The candidate's knowledge of the selections prescribed for memorization shall be tested on the Literature paper. See Circular 58.

(4) (*a*) A duly admitted candidate may also take at this examination the question paper in the Lower School Course in Manual Training, Household Science, or Agriculture and Horticulture, and shall have the marks obtained thereon added as a bonus to the aggregate of his marks on the obligatory papers, provided (i) that he makes at least 50 per cent. of the maximum of marks assigned to the subject selected, (ii) that the Principal submits to the Public School Inspector with his application, a certificate that up to the date thereof he has taken up practically, the Course in said subject, as prescribed by the Regulations, and (iii) that the Inspector or Director concerned has approved of the course as being in accordance with the Regulations.

(*b*) The Inspector's or Director's official report shall be made to the Minister within ten days after his visit. It will then be communicated to the school concerned.

ADMISSION

29.—(1) Only candidates who are in attendance at Form V of a Public or Separate School, or a Continuation School where only Lower School work is taken up, shall be admitted to the Senior High School Entrance examination.

(2) Candidates shall make application to the Public School Inspector before May 1st on an official form to be obtained from him.

(3) The fee for this examination shall be $5.00, $3.00 of which the Inspector shall forward to the Department and $2.00 to the Board of the School at which the examination is held. All or part of the fee may be paid by the County Council or the Board of the School from which the candidate comes.

(4) (*a*) The candidate shall submit to the Public School Inspector, with his application, a certificate from the Principal that he has read during the year preceding the examination, in addition to the works taken up regularly in the class, at least four works in English Literature, two in prose and two in poetry.

(*b*) The Candidate shall also submit to the Public School Inspector a certificate from the Principal, that, up to the date thereof he has taken up, practically, as prescribed by the Regulations, the courses in Science on which he intends to write

at his examination, and that the Inspector concerned has approved of the courses as being in accordance with the Regulations.

(5) The Inspector's official report shall be communicated to the School as soon as practicable after his visit of inspection.

(6) Unless the conditions prescribed in Regulations 28 (4) and 29 (1)-(4) are fully complied with, the Public School Inspector shall not admit the candidate to the examination.

CONDUCT OF THE EXAMINATION

30.—(1) (*a*) The question papers shall be prepared, the answer papers valued, and the results reported to the Minister by a Provincial Board of examiners appointed by him.

(*b*) The distribution of the question papers, the conduct of the examination at the various centres, the reading of the answer-papers, and the settlement and communication of the results shall be provided for by the Minister.

(*c*) The School Board at each centre, or the County Council, as the case may be, shall pay the cost of stationery and any other necessary supplies and all other incidental expenses. It shall also pay the cost of any additional presiding that may be necessary.

(2) The examination in Oral Reading shall be conducted by a local Examiner recommended by the Public School Inspector and approved by the Minister and shall include questions on the principles based on the passage read by the candidate.

(3) The Writing shall be judged from the answer papers in one of the other subjects to be determined by the Minister from time to time.

31.—(1) There shall be one question paper in each subject except Writing and Reading.

(2) The maximum for each of the examination papers shall be 100.

(3) The maximum for Writing shall be 50.

(4) The maximum for Reading shall be 50, of which 35 shall be for Oral Reading and 15 for questions on the Principles based on the selection read.

(5) (*a*) The standard for Pass shall be 40 per cent. in each subject, and 60 per cent. of the aggregate marks.

(*b*) The standard for Honours shall be 40 per cent. in each subject and 75 per cent. of the aggregate marks.

TEACHERS' REPORTS

32—(1) (*a*) A report signed by all the teachers concerned, as to the standing of their candidates, shall be submitted to the Minister by the Principal before the beginning of the examination.

(2) Only the names of the candidates who, in the opinion of the teachers, have completed satisfactorily the Courses for examination may be included in this report.

(3) This report shall be tested as prescribed in Regulation 7 (3) for the Junior High School Entrance examination, and, when satisfactory, shall be taken into account in settling the results.

ADMISSION TO THE MODEL AND NORMAL SCHOOLS AND THE FACULTIES OF EDUCATION

NOTES.—(1) The University examinations, pass, honour, and supplemental Matriculation, are conducted by the University Matriculation Board and the examiners and associate examiners therefor are appointed and the examination results settled by the same Board, the machinery for the conduct of the examinations being provided by the Department of Education.

(2) The Learned Societies select the papers—University or Departmental—that will meet the requirements of their preliminary examinations.

(3) On request, addressed to the Deputy Minister, the results of the Departmental examinations in which they are concerned are communicated by the Department to the Universities and the Learned Societies.

EXAMINERS-IN-CHIEF AND ASSOCIATE EXAMINERS

33.—(1) The examiners-in-chief to set the question papers for the Departmental examinations detailed in the following regulations for admission to the Normal and Model Schools and the Faculties of Education will be selected by the Minister of Education.

(2) The Associate Examiners to value the answer papers of candidates for admission to the Model Schools and for the Lower School examination for admission to the Normal Schools and the Faculties of Education shall be holders of Permanent High School certificates or of Permanent First Class certificates who have had at least two years' experience in High or Continuation School work, and all shall be actually engaged in teaching in High or Continuation Schools.

(3) The Associate Examiners to value the answer papers of candidates at the Upper School examination for admission to the Faculties of Education and the Middle School examination for admission to the Normal Schools shall be graduates of a British University or Specialists according to the Regulations of the Department of Education, who hold Permanent High School certificates, and are actually engaged in teaching in the High or Continuation Schools.

(4) No Associate Examiner will be appointed to value the answer papers in a subject which he is not actually engaged in teaching.

(5) The valuation of the answer papers shall be conducted at the Department under instructions from the Minister.

EXAMINATION CENTRES AND DATES

34.—(1) Subject to the conditions hereinafter contained and in accordance with a time-table to be issued by the Minister from time to time, written examinations, as defined below, will be held by the Department of Education, as follows:

In June, the Lower and Middle School Normal and the Lower and Upper School Faculty Entrance examinations, at each High School and Collegiate Institute and at such other centres as the Minister may approve on the recommendation of the Public School Inspector; in August, the Middle School Normal and the Upper School Faculty Entrance examinations in part, at the University of Toronto; and the Model School Entrance examination in June at such centres as the Minister may select and in August at the Summer Model Schools.

(2) The examinations at each local centre shall be conducted, and the cost thereof paid, under instructions from the Minister.

FEES

35.—(1) The following are the fees for the examinations:—

(*a*) Entrance examination into the Model Schools:

Parts A and B, each $3.00; both parts $5 00

(*b*) Lower School Entrance examination into the Normal Schools and the Faculties of Education 3 00

(*c*) Middle School Entrance examination into the Normal Schools:

Parts A and B, each $3.00; both parts 5 00

(*d*) Upper School Entrance examination into the Faculties of Education:—

(i) Parts I and II, taken together 8 00

(ii) Part I or II 5 00

(iii) Part A, B, C, or D 3 00

(iv) Three or more taken together 8 00

(2) (*a*) In the case of the June examinations, the prescribed fee shall be forwarded with the application to the Public School Inspector, who shall divide it as follows between the Department of Education and the Board of the School at which the examination is held:

Of a $3 fee—$2 to the Department and $1 to the Board.

Of a $5 fee—$3 to the Department and $2 to the Board.

Of a $8 fee—$5 to the Department and $3 to the Board.

(*b*) In the case of the August examination, the fee for each part of either the Middle or the Upper School examination shall be $3, and shall be forwarded with the application to the Deputy Minister.

(3) The additional fee of $1 will be imposed, if the application is made after the prescribed date.

APPLICATION FOR ADMISSION

DATES

36. Application for admission to the examinations shall be made as follows on an official form which will be supplied to the candidate by the Inspector or the Deputy Minister, as the case may be:—

(1) To the Public School Inspector on or before the 15th of May for admission to the June Middle School Normal and Upper School Faculty Entrance examinations; and, on or before May the 1st, for admission to the Model School Entrance and the Lower School Normal and Faculty Entrance examinations.

(2) To the Deputy Minister of Education at least one week before the close of the Summer School session for admission to the August Model School, Middle School Normal or Upper School Faculty Entrance examinations in part.

NOTE.—Official forms for reporting the lists of candidates for the different examinations will be sent the Public School Inspector.

LIMITATIONS

37.—(1) No applicant may be admitted to any of the examinations detailed below which include English Literature, unless he complies with the following conditions:

(*a*) In the case of teachers who are actually and regularly engaged in teaching, the official forms of application shall include a certificate, signed by the applicant, that he has read carefully during the preceding year, in addition to the works prescribed for the examination, at least four suitable works in English Literature, two in prose and two in poetry, the names of which shall be given in said certificate.

(*b*) In the case of other applicants, the official form of application shall include a similar certificate signed by the Principal of the School in which the candidate has completed the course for said examination.

(2) No applicant shall be admitted to an examination in Science, Manual Training, Household Science, or Agriculture and Horticulture, unless he complies with the following conditions:

(*a*) The applicant shall have been prepared at a school which has been reported by an Inspector or Director as providing a course in the subject concerned, in accordance with the Regulations.

(*b*) The Principal shall submit, with the candidate's application, to the Public School Inspector in the case of the June examinations, and to the Deputy Minister in the case of the August examinations, a certificate that, up to the date thereof, the applicant has taken up practically, in accordance with the Regulations, the course in the subject in which he intends to write, and that the Inspector or Director in his official report approved of the course in the subject as being in accordance with the Regulations.

(3) (*a*) In the case of a Provincial school, the inspection shall be made by the regular Inspector or Director; and in the case of a school other than Provincial, by the Inspector or Director designated for the purpose by the Minister.

(*b*) On application, before October 15th of each year, to the Minister with a fee of $10 for each inspection, schools other than Provincial may be inspected as provided in (2) (*a*) above.

(*c*) The Inspector's or Director's official report shall be communicated to the Minister within ten days after his visit of inspection. It will then be communicated to the school concerned.

LOWER SCHOOL EXAMINATION FOR ADMISSION TO THE MODEL SCHOOLS

38.—(1) The subjects of examination for admission to the Model Schools shall be the following subjects of the Lower School Course of the High Schools:—

Oral Reading, Writing, Spelling, Art, Elementary Science, English Literature, Geography, English Composition, English Grammar, British and Canadian History, Arithmetic, and Algebra and Geometry.

For admission to the English-French Model Schools, French Grammar and Composition shall be taken in addition.

(2) Candidates who have attended a Summer Model School and who have been actually engaged in teaching in a Provincial School during the school year immediately preceding, may take the Model School Entrance examination in two parts as follows at the June or at the August examination:—

PART A: Oral Reading, Writing, Spelling, English Grammar, Geography, British and Canadian History, and Arithmetic.

PART B: Algebra and Geometry, English Literature, English Composition, Art, and Elementary Science.

In the case of candidates for admission to the English-French Model Schools French Grammar and Composition may be taken with the subjects of Part A or Part B.

(3) (*a*) To the June Model School Entrance examination will be admitted only candidates who undertake, if successful, to attend a Model School when the ensuing session opens, and who will be qualified as to age for admission thereto.

(*b*) To the August Model School Entrance examination only candidates will be admitted who have attended a Summer Model School.

LOWER SCHOOL EXAMINATION FOR ADMISSION TO THE NORMAL SCHOOLS AND FACULTIES OF EDUCATION

39. In addition to the Middle or Upper School examinations prescribed below, candidates for admission to a Normal School or a Faculty of Education shall pass one of the following examinations:—

(1) The Senior High School Entrance examination, with the Elementary Science and Art option.

(2) The Model School Entrance examination.

(3) The Senior Public School Diploma examination with Elementary Science and Art.

(4) (*a*) The Departmental examination in the following subjects of the Lower School Course of the High Schools:—

Oral Reading, Writing, Spelling, Art, Elementary Science, Geography, British and Canadian History, English Grammar, and Arithmetic.

(*b*) Candidates who passed the Middle School Normal Entrance examination under the High School Regulations of 1909 and 1911 may, on application to the Department, be granted permission to omit at future Lower School examinations the question paper in British and Canadian History and the questions in Physics and Chemistry of the Elementary Science question paper, and also the question paper in Art if they have obtained the bonus on the Art paper of the Middle School.

EXEMPTIONS FROM THE LOWER SCHOOL EXAMINATION

40.—(1) A candidate for admission to the Normal Schools may omit the Lower School examination herein prescribed, provided that:—

(*a*) He was duly admitted by a Principal to the Middle School not later than the 1st of September, 1911; and—

(*b*) Before the 1st of September, 1911, he was entitled, under the Approved School Scheme then in force, to a certificate exempting him from the September examination in the Lower School subjects.

(2) A candidate for admission to the Faculties of Education, who was duly admitted by the Principal to the Middle or Upper School not later than the 1st of September, 1911, may omit the Lower School examination herein prescribed.

MIDDLE SCHOOL EXAMINATION FOR ADMISSION TO THE NORMAL SCHOOLS

41.—(1) In addition to the examination in the Lower School subjects prescribed above, candidates for admission to a Normal School shall pass the Departmental examination in the subjects of the Middle School of the High Schools, as follows:—

English Composition, English Literature, British and Canadian History, Ancient History, Algebra, Geometry, Physics, and Chemistry.

(2) A teacher who holds a professional certificate and who is actually and regularly engaged in teaching may take the examination in two parts as follows, at the June examination or at the August examination in alternate years (Part A in 1915):

PART A: Algebra, Geometry, English Literature, and English Composition.
PART B: Chemistry, Physics, Ancient History, and British and Canadian History.

(3) All other candidates shall take all the Middle School subjects at one examination in June.

UPPER SCHOOL EXAMINATION FOR ADMISSION TO THE FACULTIES OF EDUCATION

42. In addition to the examination in the Lower School subjects prescribed above, candidates for admission to the Faculties of Education shall take in June or August the Departmental examinations in the subjects of the Upper School of the High Schools in accordance with one of the following schemes:

(1) The June examination in one year, or in two parts in different years, by any candidate, as follows:—

Part I.—English Composition and Rhetoric. English Literature, History (First Course), Algebra, Geometry, Trigonometry, and Physics.

Part II.—History (Second Course), Biology, and Latin, with Chemistry and Mineralogy or French and German or Greek and German or Greek and French.

(2) The June examination in four parts, one or more parts in any year and in any order, and the August examination in the two parts taken up during the Summer session (Parts A and B in 1915), as follows, by any candidate who takes at least three of the four parts while actually and regularly engaged in teaching on a professional certificate, provided the Principal of the Summer School submits to the Deputy Minister the certificate, prescribed in 37 (2) (*b*) above.

PART A.—English Composition and Rhetoric, Algebra, Geometry;
PART B.—English Literature, History (First Course), Trigonometry;
Part C.—History (Second Course), Latin, Physics.
PART D.—Biology, with Chemistry and Mineralogy, or French and German, or Greek and German, or Greek and French.

(3) Candidates at the Faculty Entrance examination, who obtained Junior Teachers' standing not later than 1900, may substitute for the course now prescribed in Latin for admission to the Faculties of Education the special courses in English Literature and the History of the English Language and Literature prescribed by the Department for those who qualify under this Regulation. For particulars of the courses, see Circular 58.

(4) Candidates for admission to a Faculty of Education who are also candidates for scholarships at the Honour University Matriculation examination may substitute for one or more of the question papers of the Faculty examination the corresponding question papers in the subject or subjects of the scholarship examination.

CARRYING OVER SUBJECTS

43.—(1) Any candidate may carry over a subject from one of the examinations or parts thereof, as prescribed in Regulations 38, 39, 41, and 42 above, to another of these examinations which he has not already passed and for admission to which he is eligible, provided that—

(*a*) He has made on that subject not less than 25 per cent. of the marks assigned thereto, and—

(*b*) His standing on the first examination, omitting that subject and the bonus subject, and his standing on the second examination, including the former subject, are each of the prescribed standard.

(2) An Upper School examination in any one of the following subjects will be accepted instead of an examination in the corresponding subject carried over from the Middle School examination: English Literature, English Composition, Algebra, Geometry, Physics, or Chemistry.

EXAMINATION PAPERS, TESTS, AND STANDARDS

44.—(1) (*a*) One question paper shall be set in each subject, except in the case of Upper School Greek, Latin, French, German, and Biology; Middle School Latin, Art, and Agriculture and Horticulture; and French for admission to the English French Model Schools. In each of these subjects there shall be two papers.

(*b*) Optional questions shall be given at all the examinations in History and may be given in any other paper at the discretion of the Board of Examiners concerned.

(2) In English Composition an essay or a letter or both shall be required, to which special importance shall be attached. Questions in Rhetoric may also be set at the examination for entrance into the Faculties of Education; but no candidate shall be passed who does not make at least 40 per cent. of the maximum value of the marks assigned the essay or the letter, or both together, as the case may be.

(3) In addition to the examination on passages from the prescribed authors, questions on sight passages shall also be set at all the examinations in Greek, Latin, French and German, and in English Literature. See Circular 58.

(4) For each of the above examinations which includes English Literature as a subject, candidates will be expected to have memorized the prescribed passages in the English Literature texts, and their knowledge thereof will be tested in the English Literature paper. See Circular 58.

(5) The examination in Oral Reading shall be conducted by an Examiner appointed by the Minister, and shall include questions on the Principles based upon the passages read. The maximum marks shall be 50, 35 for the Oral Reading and 15 for the Principles.

(6) The Writing shall be judged from the answer papers in one of the other subjects, to be selected by the Minister when the answer papers are being examined. The maximum marks for the subject shall be 50.

(7) Each of the question papers in the bonus subjects in Latin, Art, Manual Training, Household Science, and Agriculture and Horticulture shall be valued at 50 marks. Each of the other question papers shall be valued at 100 marks.

(8) Hereafter the problems in the work prescribed in Mechanics and the Properties of Matter at the Faculty Entrance examination in Physics will be of a somewhat less difficult character than those usually set hitherto.

45.—(1) Candidates may take in addition to the obligatory subjects of the examination one of the subjects as set forth in the following scheme and shall have the marks obtained thereon added as a bonus, provided that they have made at least the percentage required and that the provisions of Regulation 37 (2) (*b*) have been duly complied with:

(*a*) At the Model School or the Lower School Normal or Faculty Entrance examination, 50 per cent. on the question paper in Manual Training, or Household Science, or Agriculture and Horticulture.

(*b*) At the Middle School Normal Entrance examination, 34 per cent. on each of the Middle School Latin or Art or Agriculture and Horticulture question papers and 50 per cent. of the aggregate of marks.

(*c*) At either Part I or Part II of the Faculty Entrance examination, if the bonus on the subject has not been already taken at a Middle or Upper School examination, 34 per cent. on each of the Middle School Art and Agriculture and Horticulture papers and 50 per cent. of the aggregate marks.

(*d*) No candidate who divides an examination as provided for those engaged in teaching may take one of the bonus subjects.

(2) If, after the answer papers have been read, any question paper should be found to be longer, easier, or more difficult than required, due allowance shall be made therefor.

(3) (*a*) Before an examination begins, a report in a form prescribed by the Minister shall be submitted, signed by all the members of the staff of the school concerned, as to the standing of their candidates. This report, when tested as in the case of the Junior High School Entrance examination [Regulation 7, (3) above], will be taken into account in settling the results.

(*b*) Only the names of the candidates who, in the opinion of the staff, have completed satisfactorily the courses for the examination may be included in this report.

(4) (*a*) At the examination for admission to the English-French Model Schools, the standard for pass shall be 34 per cent. of the marks assigned each question paper, and 50 per cent. of the aggregate marks.

(*b*) At each of the other examinations, or parts thereof, the standard for pass shall be 60 per cent. of the aggregate marks in the subjects prescribed for each examination, and 40 per cent. on each paper or other examination test.

(*c*) For honours, the standard shall be 75 per cent of the aggregate marks in the subjects for each examination, and 40 per cent. in each paper or other examination test.

(5) Candidates who make the required aggregate may be awarded a certificate, even though they should fail to obtain the minimum in a subject, provided they were reported by the staff as fit to pass in that subject, as shown from the report provided for in Regulation (3) above.

(6) Candidates who have failed at the Middle School examination, but have passed the Lower School examination for admission to the Normal Schools, may, on application to the Minister, be admitted to a Model School, provided they have obtained 50 per cent. of the aggregate of the marks for the Middle School examination and 34 per cent. of the marks for each question paper therefor.

(7) Candidates who have failed at the Upper School examination, but have passed the Lower School examination for admission to the Faculties of Education, may, on application to the Minister, be admitted to a Normal or Model School, provided they have obtained 50 per cent. of the aggregate of the marks for each part and 34 per cent. of the marks for each question paper.

APPEALS

46.—(1) The answer papers of all candidates at the examinations or parts thereof as prescribed in Regulations 28, 38, 39, 41, and 42, who, on the valuation of the Associate Examiners, are found to have failed in any way by not more than a small margin, shall be re-read by a Revising Committee before the settlement of the results. Candidates who still fail on this second reading shall have their statements of marks stamped "Re-read," and in such cases no appeal will be allowed.

(2) Candidates who fail and whose papers have not already been so re-read, may have their papers re-read on lodging an appeal before September 1st and paying a fee of $2.00, which will be returned if the appeal is sustained.

(3) Should illness, bereavement, or any other unavoidable cause, interfere with a candidate's examination, such circumstances shall be duly taken into account in settling the results, but only when fully reported to the Department with satisfactory documentary evidence, not later than the close of such examination.

REPEAL OF REGULATIONS

All former Regulations of the Department of Education that are inconsistent with the Regulations in Parts I and II herein are hereby repealed.

PART III

EXTRACTS FROM THE

Continuation Schools Act

The High and Public and Separate Schools Acts

and

The Department of Education Act

STATUTORY PROVISIONS AFFECTING CONTINUATION SCHOOLS

Extracts from the Acts

AN ACT RESPECTING CONTINUATION SCHOOLS

1. This Act may be cited as "*The Continuation Schools Act.*"

2. In this Act,—

(*a*) "Maintenance" shall include ordinary repairs to the teacher's residence, the school buildings, outhouses, gymnasium, fences and school furniture; the improvement of the school grounds and the grounds attached to the teacher's residence; insurance of the school property, salaries of the teachers, officers and servants of the Board, the expense of conducting entrance examinations, and other expenses for ordinary school purposes and for such annual additions to the library, apparatus and other appliances as may be required by the Minister or by the Regulations, and shall also include gratuities and retiring allowances granted to teachers;

(*b*) "Minister" shall mean Minister of Education;

(*c*) "Municipality" shall include a city, town, village or township, but not a county;

(*d*) "Permanent improvements" shall include the purchase or rental of a residence for a teacher, or of a school site, the erection or rental of a school house, the enlargement of both or either of them, changing the system of heating or ventilation, the erection of fences, outhouses and gymnasium, the purchase of school furniture, maps and apparatus, library, and all other appliances required by the Regulations;

(*e*) "Regulations" shall mean the Regulations made by the Minister under *The Department of Education Act.*

3.—(1) Subject to the Regulations, and to the approval of the Minister the Public School Board of any municipality or school section or a Separate School Board may establish and maintain one Continuation School with a staff of at least one teacher engaged for his whole time.

(2) The Board shall have in respect of such Continuation School all the powers conferred on Public or Separate School Boards, as to acquiring a school site, erecting buildings and additions to existing buildings and providing equipment for and paying the cost of permanent improvements and of the maintenance of such Continuation Schools.

(3) Subject to the Regulations, and to approval of the Minister, agreements may be entered into by two or more Public School Boards or by one or more of such Boards and one or more Separate School Boards for the establishment and maintenance of a Continuation School to be conducted in some place agreed upon by the Boards for the benefit of the pupils from all of such schools, and any such

agreement shall specify the proportion of the cost of the establishment and maintenance of the Continuation School to be paid by each of such Boards or shall provide for the manner in which such proportion shall be determined.

(4) A Continuation School established under subsection 3 shall be under the control and management of a committee composed of not more than two-thirds of the members of each of the Boards by which it is established, who shall be appointed by such Boards respectively.

(5) The committee shall be a body corporate and shall be styled The Board of Trustees of the Continuation School of the (naming the municipality or school section or sections).

(6) Where the Board of a union school section establishes or enters into an agreement with any other Board for the establishment of a Continuation School, the council of each municipality included or part of which is included in the union school section shall levy and collect upon the taxable property in the union school section within its jurisdiction its share of the expense of establishing and maintaining such Continuation School according to the equalized assessment as provided by *The Public Schools Act* of the part of the union school section comprised in the municipality.

(7) Subject to subsection 8 for the purposes of subsections 1 and 2 of section 93 of *The Public Schools Act* a Continuation School shall be deemed a public school.

(8) Where the Continuation School is established by one or more Public School Boards the amount to be levied and collected by the Township Council under section 93 of *The Public Schools Act* shall be levied upon the taxable property of the public school supporters, and where the school is established by one or more separate School Boards the amount to be levied shall be levied upon the supporters of such separate schools.

4.—(1) All sums required to be provided for the support of a Continuation School established under section 3, after deducting from the expenditures the Legislative and county and other municipal grants, shall be provided for by a rate levied—

(*a*) Where the school is established by the Board of an urban municipality or of a public school section, or by the Board of an urban municipality and one or more public school sections, or by the Boards of two or more public school sections on the property liable to assessment and taxation for public school purposes in such municipality or school section or sections;

(*b*) Where the school is established by the Board of a separate school, on the property liable to assessment and taxation for separate school purposes;

(*c*) Where the school is established by one or more Public School Boards and one or more Separate School Boards, on the property liable to assessment and taxation for public school purposes in the municipality or section or sections and on the property liable to assessment and taxation for separate school purposes in the proportions fixed by or under the agreement for the establishment of the school.

5.—(1) Pupils whose parents are supporters of the school may be admitted free or charged such fees as the Board may determine, but such fees shall be uniform for all such pupils.

(2) Pupils whose parents are not supporters of the school may be admitted for the first year after the establishment of the school on payment of such fees as may be mutually agreed upon by the Board and the parents of the pupils, and thereafter on the payment of such fees as the Board may determine, but all such fees shall be uniform, and the fee shall not exceed an amount equal to the cost per pupil of the maintenance of the school as ascertained by taking the total cost of maintenance of the school for the year next preceding after deducting the amount of the Legislative and county grants and dividing it by the average number of all the pupils in attendance for the same year.

(3) The Board of any other public or separate school may agree with the Board by which the Continuation School is established, or the Board of the Continuation School, as the case may be, for the payment by such first mentioned Board of a lump or other annual sum in lieu of the fees payable under subsection 2.

6. A Continuation School shall not be established or maintained in a municipality in which a High School is maintained, or in any other part of a high school district.

7. The Council of the county in which the Continuation School is situate shall pay towards the maintenance of such school a sum equal to the amount apportioned to the school by the Minister out of the Legislative grant.

8.—(1) The Council of the county may contribute such further sum as it may deem expedient towards permanent improvements or to the maintenance of Continuation Schools situate in the county, but any sum so contributed, except as provided by subsection 2, shall be apportioned among all such Continuation schools, in proportion to the amount which the Council is required to contribute to their support.

(2) The Council of a county may by a two-thirds vote of all the members thereof pass by-laws for granting additional aid to any one or more of the Continuation Schools in the county without making a similar provision for the other Continuation Schools therein.

(3) The Council of united counties may apportion the amount to be levied for Continuation Schools so that each county in the union shall be liable only for sums payable in respect to Continuation Schools situate therein.

(4) Where an Agricultural Department is established by the Minister in a Continuation School, the Council of the county in which the Continuation School is situate shall on or before the 15th day of December in each year pay to the Board of the school in which such department is established the sum of $500, which shall be applied by the Board to the purposes of such department.

(5) Where the Continuation School is situate in an urban municipality, or in a union school section parts of which are in two or more counties, the amount payable under subsections 1 and 4 by the corporation of each county shall be determined in the manner provided by section 29 of *The Public Schools Act.*

9. Pupils whether resident or non-resident may be admitted to a Continuation School in accordance with the Regulations governing the admission of pupils to high schools.

10. Every teacher appointed as Principal or Assistant in a Continuation School shall possess the qualifications prescribed by the Regulations.

11. The courses of study in Continuation Schools shall be such as are prescribed by the Regulations.

HIGH SCHOOLS ACT

11. A High School Board, a Public School Board and a Continuation School Board or any one or more of such Boards may engage the services of any person holding the degree of Bachelor of Science of Agriculture or other certificate of qualification from the Ontario Agricultural College and approved of by the Minister, to give instruction in agriculture to the pupils of their respective schools; and the instructor shall perform such duties and the funds set apart for instruction in agriculture shall be expended for such purposes as may be prescribed by the Regulations.

28.—(*a*) Where a High School has been established under this Act or a continuation school has been constituted a high school under section 12 of *The Continuation Schools Act,* the council of the county in the case of a county high school or the council of the city or town in the case of a high school in a city or separated town may, with the approval of the Minister, discontinue such high school, and the property of the school so discontinued may be disposed of as provided by section 28.

HIGH SCHOOL ENTRANCE EXAMINATIONS

General

44. Subject to the Regulations—

(*a*) Candidates who pass the uniform entrance examination for high schools held by boards of examiners provided for in this Act shall be granted admission to the high schools.

(*b*) Candidates who have completed the course prescribed for the fourth form of the public school or who have, in the opinion of a board of examiners, completed a course which gives them an equivalent standing may, in the discretion of such board of examiners, be by it admitted to the high schools without passing such entrance examination.

(*c*) A candidate shall be entitled to enter a high school while it is conducted at night if, in the opinion of the principal of the high school and of the public school inspector or the chief public school inspector of the high school district, after due examination or other investigation he is competent to take up the subjects as prescribed by the Regulations, but such admission shall not entitle him to admission to the high school when conducted by day.

45.—(1) Subject to the Regulations the Minister may establish an examination for entrance to the Middle School of the High Schools for those who have completed the course prescribed for the Lower School of the High Schools, and such examinations shall be known as "The Senior High School Entrance Examination."

(2) After the establishment of such examination the Entrance Examination provided for by section 44 shall be known as "The Junior High School Entrance Examination."

46.—(1) Subject to the Regulations, any person actually engaged in teaching in the High School District, if a qualified examiner can be obtained therein, who holds—

(*a*) A permanent High School certificate, or

(*b*) A permanent First Class certificate, or

(*c*) A Provincial Second Class certificate, and has had five years' experience as a teacher,

may be appointed a presiding officer or a member of a board of examiners.

(2) The Minister may suspend any member of the Board from membership therein for such period as he may deem expedient in case of the failure of such member to properly observe the Regulations with regard to High School Entrance Examinations, or of being guilty of other misconduct in office.

(3) The Minister may appoint some other qualified person to act in the place of the member so suspended.

In the Counties

47.—(1) (*a*) In a county in which one or more High Schools have been established, one or more examination centres shall be established by the high school board from time to time in each district and in other parts of the county by the county council. The county clerk or the secretary of the board as the case may be shall give due notice to the public school inspector of the establishment of such centres, and the inspector shall attach each centre established by the county council to the centre or centres of one of the high school districts.

(*b*) A high school district shall be under one board of examiners. The public school inspector of an inspectorate in which a high school centre or attached county centre is situate, and the high school principal or principals in the high school district shall be members of the board of examiners. The public school board and the board of separate school trustees, if any, of the city, town, or village in which the high school is situate, may each, on or before the first day of June in any year, appoint an additional member to the board. The county council may, also, on or before the first day of June in any year, appoint the principal of one continuation school having a staff of at least two teachers, to be a member of the board of examiners of the high school district to the centre or centres of which his county centre is attached.

(2) (*a*) In a county in which no high school has been established, the county council, at its meeting in June, in each year, shall appoint a county board of examiners, consisting of the public school inspectors, with as many more members as may appear to be necessary, and preference shall be given to the principals of the continuation schools of the county.

(*b*) The county council shall also establish such county centres as it may deem necessary, and the county clerk shall notify the public school inspectors of the establishment of such centres.

(3) Subject to the Regulations, every board of examiners shall in each year appoint such additional members as may be required.

(4) Subject to the Regulations, the expenses of examination shall be paid, on the requisition of the chairman of the board of examiners, in the case of county centres, by the treasurer of the county, and in the case of the high school district centres, by the treasurer of the high school board.

(5) The county council or the high school board, as the case may be, may impose a fee not exceeding $1 upon each candidate at the county and the high school district centres, which shall be paid by the candidate as prescribed by the Regulations, and shall be paid over at or before the close of the written examination, to the treasurer of the county or of the board, as the case may be.

In the Territorial Districts

48.—(1) (*a*) Where there are one or more high schools in a public school inspectorate in territory without county organization there shall be a board of examiners for each high school. The inspector for the inspectorate in which the high school is situate and the high school principal or principals in the high school district shall be members of the board. The public school board and the board of separate school trustees, if any, of the city, town, or village in which the high school is situate, may each, on or before the first day of June of any year, appoint an additional member. Subject to the Regulations, the board of examiners, in each year shall appoint such additional members as may be required, and preference shall be given to the principals of continuation schools in the inspectorate.

(*b*) One or more centres shall be established by the high school board in each high school district, and with the approval of the Minister, other centres may be selected and attached by the public school inspector to one of the high school district centres in his inspectorate.

(2) (*a*) In an inspectorate in which no high school has been established, there shall be a board of examiners, consisting of the public school inspector and as many more members as may appear to him to be necessary, appointed by the Inspector, with the approval of the Minister, and preference shall be given to the principals of continuaton schools in the inspectorate.

(*b*) In such inspectorates, the centres shall be selected by the Inspector, with the approval of the Minister.

(3) Subject to the Regulations, the expenses of the examinations shall be paid by the Minister out of any money appropriated by legislation and applicable to that purpose.

PUBLIC SCHOOLS ACT

AGREEMENTS

87.—(1) Every agreement between a board and a teacher shall be in writing, signed by the parties thereto, and sealed with the seal of the board.

(2) No person shall be employed or act as a teacher unless he holds a certificate of qualification.

(3) Unless otherwise expressly agreed, a teacher shall be entitled to be paid his salary in the proportion which the number of days during which he has taught bears to the whole number of teaching days in the year.

(4) Every teacher shall be entitled to his salary notwithstanding his absence from duty on account of sickness for a period not exceeding four weeks in any one year of his employment, if the sickness is certified to by a physician, or in a case of acute inflammatory condition of the teeth or gums by a licentiate of dental surgery, but the period of four weeks may in any case of sickness be allowed and extended at the pleasure of the Board, without a certificate.

(5) If at the expiration of a teacher's engagement his salary has not been paid in full, the salary shall continue to run at the rate mentioned in the agreement until paid, if an action to recover it is commenced within three months after the salary is due and payable.

(6) All matters of difference between boards and teachers, in regard to salary or other remuneration, whatever may be the amount in dispute, shall be determined in the Division Court of the division where the cause of action arose, subject to appeal, as provided by this Act.

(7) If it appears to the Judge on the trial of an action for the recovery of a teacher's salary that there was reasonable ground for the board disputing its liability, and that it was willing and offered to pay to the teacher any sum not so in dispute, the Judge may relieve the board from the liability imposed by subsection 5, in whole or in part.

TEACHERS' INSTITUTES

89.—(1) Subject to the Regulations, teachers may organize themselves into Teachers' Institutes for the purpose of receiving instruction in methods of teaching and for discussing educational methods.

(2) The Minister may out of any money appropriated for that purpose apportion $25 to each teachers' institute so organized, and conducted according to the Regulations, where the number of teachers in an inspectorate or united inspectorate is one hundred or less, and where it is more than one hundred, $25 for each additional one hundred or portion thereof, and the council of each county, city, or separated town, or town in territory without county organization shall pay annually to the president of each teachers' institute established within such county, city, or town a sum at least equal to the amount so apportioned.

(3) If the teachers in an inspectorate composed of a city and part of a county are united in one teachers' institute, the corporation of each municipality shall pay its share of the equivalent of the legislative grant in the proportion that the number of teachers in each inspectorate bears to the total number of teachers in the combined inspectorates.

(4) In territory without county organization the Minister may apportion $50 to each teachers' institute where there is no city or town council liable for such contribution.

SUPERANNUATION

106. Every teacher and inspector whose name was, on the 30th day of March, 1886, entered as having contributed to the fund for superannuated teachers, may continue to contribute to such fund in such manner as may be prescribed by the Regulations the sum of at least $4 annually, but no payment of arrears which accrued before the 1st day of January, 1885, shall be allowed.

107. On the death of a teacher or inspector, the wife, husband, or legal representative of such teacher or inspector shall be entitled to receive the amount paid into the superannuation fund by such teacher or inspector, with interest at the rate of seven per cent. per annum.

108.—(1) Every teacher and inspector who, while engaged in his profession, has contributed to the superannuated teachers' fund as provided by this Act, shall on reaching the age of sixty years, if he retires from the profession, receive an annual allowance at the rate of $6 per annum for every year of service in Ontario, upon furnishing evidence of good moral character, age and length of service.

(2) A teacher or inspector who has reached the age of sixty years shall not be disqualified for superannuation by reason of his having retired from active service before reaching that age if he has served for a period of thirty years.

(3) Every teacher and inspector under sixty years of age who has so contributed and who is disabled from practising his profession shall be entitled to a like annual allowance upon furnishing evidence as to length of service, moral character, and disability.

(4) Every superannuated teacher and inspector who holds a first or second class provincial certificate, or a first-class county board certificate, and every principal of a high school or collegiate institute shall be entitled to receive a further allowance at the rate of $1 per annum for every year of service while he held such certificate or while he acted as principal of a high school or collegiate institute.

(5) The retiring allowance shall cease at the close of the year in which the death of the recipient takes place.

(6) If a superannuated teacher or inspector, with the consent of the Minister, resumes the profession of a teacher or inspector, his allowance shall be suspended during the time he is so engaged, and if he is again placed on the superannuation list an allowance for the additional time of service shall be made on compliance with this Act and the Regulations.

(7) A teacher or inpector who, having resumed his profession, wilfully draws or continues to draw upon the superannuation fund shall forfeit all claim to the fund and his name shall be struck off the superannuation list.

(8) A teacher or inspector who retires from the profession, or who desires to remove his name from the list of contributors to the superannuation fund, shall be entitled to receive back one-half of any sum contributed by him to the fund.

(9) Where a teacher or inspector does not avail himself of the provisions of section 106 or of subsection 8 of this section, the provisions of section 107 and subsections 1 to 7 of this section shall apply so far as relates to all sums already paid by him into the superannuation fund.

109.—(1) Subject to the Regulations, the public school board of a city or town may make such annual grant as may be deemed proper for the establishment or

in aid of a superannuation fund for the teachers and officers of the board of such city or town, and may make rules prescribing the terms and conditions upon and under which they shall be entitled to participate therein and may make it a term of the engagement of a teacher or officer that he shall contribute to the fund such annual sum as may be prescribed by such rules.

(2) A board may invest any money received through legacy, gift, or superannuation fund, or in its hands for the purpose of a superannuation fund or otherwise, and for such purposes may have and may exercise the powers conferred upon trustees by *The Trustee Act.*

110. Where a teacher, inspector, or officer of a board whose time is entirely devoted to the work of the board retires, having reached the age of 60 years, or after having been for 20 years in the service of the board, the board, in the case of a teacher, city inspector or other officer, and the county council in the case of a county inspector, may grant him an annual allowance not exceeding the salary which he was receiving at the time of retirement, or may make a grant to him by way of gratuity of a sum not exceeding the present value of such annual allowance computed on the basis of interest at the rate of four per centum per annum.

SCHOOL YEAR AND HOLIDAYS

7.—(1) The school year shall consist of two terms, the first of which shall begin on the first day of September, and shall end on the twenty-second day of December, and the second of which shall begin on the 3rd day of January and end on the 29th day of June.

(2) Every Saturday, every public holiday, the week following Easter Day, and every day proclaimed a holiday by the authorities of the municipality in which the teacher is engaged, shall be a holiday in public schools.

PENALTIES AND PROHIBITIONS

113. If a teacher negligently or wilfully permits an unauthorized book to be used as a text-book by the pupils of his school the Minister, on the report of the inspector, may suspend such teacher, and the board may also deduct from his salary a sum equal to so much of the legislative grant as has been withheld on account of the use of such book or any less sum at its discretion.

117. A trustee shall not be eligible for appointment as public school inspector or teacher, nor shall the teacher of a high, public or separate school hold the office of public school trustee, nor shall an inspector be a teacher or trustee of a high, public or separate school while he holds the office of inspector.

121. Any person who wilfully interrupts, or disquiets the proceedings of a school meeting, or a public school, by rude or indecent behaviour, or by making a noise either within the place where such meeting is held or such school is kept, or so near thereto as to interfere with the proceedings of the meeting or order of exercises of the school, shall for each offence incur a penalty not exceeding $20.

129. If a trustee knowingly signs a false report, or if a teacher keeps a false school register, or makes a false return, he shall, for every offence incur a penalty not exceeding $20.

SEPARATE SCHOOLS ACT

SUPERANNUATION

81. Every teacher and inspector whose name was, on the 30th day of March, 1886, entered as having contributed to the fund for superannuated teachers may continue to contribute to such fund in such manner as may be prescribed by the Regulations, at least $4 annually, but no payment of arrears which accrued before the first day of January, 1885, shall be allowed.

82. On the death of any such teacher or inspector, the wife, husband, or legal representative of such teacher or inspector shall be entitled to receive the amount paid into the superannuation fund by such teacher or inspector, with interest at the rate of seven per cent. per annum.

83.—(1) Every such teacher and inspector who, while engaged in his profession has contributed to the fund for superannuated teachers as provided by this Act, shall on reaching the age of sixty years, if he retires from the profession, receive an allowance at the rate of $6 per annum, for every year of service in Ontario, upon furnishing evidence of good moral character, age and length of service.

(2) A teacher or inspector who has reached the age of sixty years shall not be disqualified for superannuation by reason of his having retired from active service before reaching that age, if he has served for a period of thirty years.

84. Every such teacher and inspector under sixty years of age, who has so contributed, and who is disabled from practising his profession, shall be entitled to a like annual allowance, upon furnishing evidence as to length of service, moral character and disability.

85.—(1) Every superannuated teacher and inspector who holds a first or second class provincial certificate, or a first class county board certificate, or who has been a principal of a high school or collegiate institute, shall be entitled to receive a further allowance at the rate of $1 per annum for every year of service while he held such certificate, or while he acted as principal of a high school or collegiate institute.

(2) The retiring allowance shall cease at the close of the year in which the death of the recipient takes place.

86. If a superannuated teacher or inspector, with the consent of the Minister, resumes the profession of a teacher or inspector, the payment of his allowance shall be suspended during the time he is so engaged; and if he is again placed on the superannuation list, an allowance for the additional time of service shall be made on compliance with this Act, and the Regulations.

87. A teacher or inspector who having resumed his profession wilfully draws or continues to draw upon the superannuation fund, shall forfeit all claim to the fund, and his name shall be struck off the superannuation list.

DEPT. OF EDUCATION
HISTORICAL COLLECTION

88. A teacher or inspector who retires from the profession, or who desires to remove his name from the list of contributors to the superannuation fund, shall be entitled to receive back one-half of any sum contributed by him to the fund.

89. Where a teacher or inspector does not avail himself of the provisions of section 81, or of section 88, sections 82 to 87 shall apply so far as relates to all sums already paid by them into the superannuation fund.

90.—(1) Subject to the Regulations, the separate school board of a city or town may make such annual grant as may be deemed proper for the establishment or in aid of a superannuation fund for the teachers and officers of the board of such city or town, and make rules prescribing the terms and conditions upon and under which they shall be entitled to participate therein, and may make it a term of the engagement of a teacher or officer that he shall contribute to the fund such annual sum as may be prescribed by such rules.

(2) A separate school board may invest any money received through legacy, gift, or otherwise, in its hands for the purposes of a superannuation fund, and as to such money shall have and may exercise the powers conferred upon trustees by *The Trustee Act.*

SCHOOL YEAR AND HOLIDAYS

91.—(1) The school year shall consist of two terms, the first of which shall begin on the 1st day of September and shall end on the 22nd day of December, and the second of which shall begin on the 3rd day of January and end on the 29th day of June.

(2) Every Saturday, every public holiday, the week following Easter Day, and every day proclaimed a holiday by the authorities of the municipality in which the teacher is engaged shall be a holiday.

PENALTIES AND PROHIBITIONS

92. If a teacher negligently or wilfully permits an unauthorized book to be used as a text-book by the pupils of his school, the Minister, on the report of the inspector, may suspend such teacher, and the board may also deduct from his salary a sum equal to so much of the legislative grant as has been withheld on account of the use of such book or any less sum at its discretion.

94. A trustee of a separate school shall not be eligible for appointment as separate school inspector or teacher, nor shall the teacher of a high, public or separate school hold the office of trustee of a separate school, nor shall an inspector be a teacher or trustee of any separate school while he holds the office of inspector.

97. Any person who wilfully interrupts or disquiets the proceedings of a school meeting or a separate school by rude or indecent behaviour, or by making a noise either within the place where such meeting is held or such school is kept, or so near thereto as to interfere with the proceedings of the meeting or order of exercises of the school, shall, for each offence, incur a penalty not exceeding $20.

105. If a board neglects to transmit its annual report to the Minister in accordance with clause (*l*) of section 45, each of them shall, for every week during which the default continues and until such report is transmitted, incur a penalty of $5.

106. If a trustee knowingly signs a false report, or if a teacher keeps a false school register, or makes a false return, he shall, for every offence, incur a penalty not exceeding $20.

DEPARTMENT OF EDUCATION ACT

28.—(1) A teacher, trustee, inspector, or other person officially connected with the Department, or with any normal, model, public, or high school or collegiate institute, or other institution which is under the management or control of the Department, shall not sell or become or act as agent for any person to sell or to promote in any way the sale of any school library, prize or text book, map, chart, school apparatus, furniture, stationery or other article for the use of any normal, model, public, or high school, collegiate institute or other institution aforesaid or for the use of any pupil thereof, nor shall he receive, directly or indirectly, compensation or other remuneration or the equivalent for so doing.

(2) For any contravention of subsection 1 a teacher shall incur a penalty of $50; a trustee shall incur a penalty of $100; an inspector shall incur a penalty of $500; and any other person so officially connected shall incur a penalty of $100.

(3) Any person, firm or corporation and any agent of a person, firm or corporation who employs a teacher, trustee, inspector, or any other person officially connected with the Department or with any normal, model, public or high school or collegiate institute, or other institution which is under the management or control of the Minister, to sell or become or act as agent for or to promote in any way the sale of any school library, prize or text book, map, chart, school apparatus, furniture, stationery or other article for the use of any normal, model, public or high school, collegiate institute, or other institution aforesaid, or who directly or indirectly gives or pays to any such teacher, trustee, inspector or other person, compensation or remuneration, or the equivalent thereof for so doing, shall for every such offence incur a penalty of $500.

(4) Any gift or payment made to a teacher, trustee, inspector or other person so officially connected by any person, firm or corporation interested either as principal or agent in any such sale, shall be *prima facie* evidence of a violation of this section.

(5) The penalties imposed by this Act shall be recoverable under *The Ontario Summary Convictions Act.*

(6) The penalties recovered under this Act shall be applied to such school purposes as the Minister may direct.

(7) No prosecution for any of the penalties mentioned in this section shall be instituted without the written consent of the Attorney-General or his deputy.

(8) This section shall not apply to sales made by a trustee who is a merchant or bookseller in the ordinary and regular course of his business as such, and made at his shop or place of business.